Cat No.	Product Name	Pack size	Instrument	Sample type	Assay Type	Detection Principle	Sensitivity	Detection Range	Research Area
E-BC-K196-M	5'-Nueleotidase (5'-NT) Colorimetric Assay Kit	96T, 48T	Microplate reader	Serum, Plasma, Animal Tissue	Quantitative	5'-Nucleotide enzyme (5'-NT, EC 3.1.3.5), full name is 5'-ribonucleotide phosphohydrolase, is a special phosphohydrolase that specifically hydrolyzes 5'-phosphoric acid attached to pentose in 5'-nucleotide. This enzyme is widely distributed in the cell membrane of various tissues of human and animal. Only the 5'-NT released by the tissue cells of the hepatobiliary system may enter the blood. Therefore, the source of serum 5'-NT has certain specificity, and the determination of serum 5'-NT has important value for the diagnosis of hepatobiliary diseases.	28.0 U/L	28.0-581 U/L	Lipids metabolism
E-BC-K174-M	Acetylcholinesterase (AchE) Activity Assay Kit	96T, 48T	Microplate reader	Serum, Plasma, Animal Tissue	Enzyme Activity	AchE catalyzes the hydrolysis of acetylcholine to form choline, and choline react with dithio p-nitrobenzoic acid (DTNB) to form 5-mercapto-nitrobenzoic acid (TNB). TNB has an absorption peak at 412nm. And the activity of AchE is calculated by measuring the increasing rate of absorbance at 412nm.	1.225 U/mL	1.225-490 U/mL	Enzymes,Others
E-BC-K053-S	Acetylcholinesterase (A-CHE) Activity Assay Kit	50Assays	Spectrophotometer			#N/A			Enzymes
E-BC-K010-M	Acid Phosphatase (ACP) Activity Assay Kit	96T, 500Assays	Microplate reader	Serum, Plasma, tissue	Enzyme Activity	Disodium p-nitrobenzene phosphate (p-NPP), a widely used phosphatase chromogenic substrate, can form p-nitrophenol under the action of acid phosphatase. Under alkaline conditions, p-nitrophenol is yellow and has a maximum absorption peak at 405 nm. The darker of the yellow product is, the higher of the ACP activity is. Therefore, the activity of ACP can be calculated by measuring the OD value at 405 nm.	0.2 U/L	0.2–50 U/L	Enzymes
E-BC-K094-M	Acid Phosphatase (ACP) Activity Assay Kit	96T, 500Assays	Microplate reader	Serum, Plasma, hydrothorax, Urine, cells, cell culture supernatant, Animal Tissue	Enzyme Activity	Acid phosphatase decomposes disodium phenyl phosphate under acidic conditions to produce free phenol and phosphoric acid. Phenol acts with 4-aminoantipyrine in alkaline solution, and oxidizes to a derivative of red quinone by potassium ferricyanide. The activity of the ACP can be calculated by measuring the OD value at 520 nm.	1.40 U/100 mL	1.40-40 U/100 mL	Enzymes,Others
E-BC-K094-S	Acid Phosphatase (ACP) Activity Assay Kit	100Assays, 500Assays	Spectrophotometer	Serum, Plasma, Urine,	Enzyme Activity	Acid phosphatase decomposes disodium phenyl phosphate under acidic conditions to produce free phenol	0.27 U/100 mL	0.27-40 U/100 mL	Enzymes,Others

				tissue, cells		and phosphoric acid. Phenol acts with 4-aminoantipyrine in alkaline solution, and oxidizes to a derivative of red quinone by potassium ferricyanide. The activity of the ACP can be calculated by measuring the OD value at 520 nm.			
E-BC-K197-M	Adenosine Deaminase (ADA) Activity Assay Kit	96T, 48T	Microplate reader	serum, Plasma, Animal Tissue	Enzyme Activity	Adenosine deaminase (ADA) can hydrolyzed the substrate adenosine to form hypoxanthine riboside, which is hydrolyzed by purine riboside phosphatase to produce hypoxanthine and phosphate ribose. Under the action of xanthine oxidase, hypoxanthine produces hydrogen peroxide, which produces red substance under the action of peroxidase, 4-aminotepyrine and color source. The red substance has the maximum absorption peak at 550 nm and the changes of absorbance is proportional to the activity of ADA.	0.03 U/L	0.03-99 U/L	Enzymes,Liver Biomarkers
E-BC-K039-S	Adenosinetriphosphatase (ATPase) Activity Assay Kit (Cell Membranes, Mitochondria, Microsomes Samples)	100Assays, 50Assays	Spectrophotometer			#N/A			Oxidative stress
E-BC-K235-M	Alanine Aminotransferase (ALT/GPT) Activity Assay Kit (Reitman-Frankel Method)	96T, 48T	Microplate reader	Serum, Plasma, Animal Tissue, cells, cell culture supernatant	Enzyme Activity	ALT catalyze the amino conversion reaction between alanine and α-ketoglutaric acid to produce pyruvic acid and glutamic acid at pH 7.4 and 37℃. Then phenylhydrazine was added to form phenylhydrazone with pyruvic acid. Phenylhydrazone is reddish brown under alkaline conditions. ALT activity can be calculated by measuring the OD values at 510 nm.	0.75 IU/L	0.75-72.3 IU/L	Enzymes,Liver Biomarkers
E-BC-K235-S	Alanine Aminotransferase (ALT/GPT) Activity Assay Kit (Reitman-Frankel Method)	100Assays, 50Assays	Spectrophotometer	Serum, Plasma, cells, Animal Tissue	Enzyme Activity	ALT catalyze the amino conversion reaction between alanine and α-ketoglutaric acid to produce pyruvic acid and glutamic acid at pH 7.4 and 37℃. Then phenylhydrazine was added to form phenylhydrazone with pyruvic acid. Phenylhydrazone is reddish brown under alkaline conditions. ALT activity can be calculated by measuring the OD values at 510 nm.	1.26 IU/L	1.26-72.3 IU/L	Enzymes,Liver Biomarkers
E-BC-F038	Alanine Aminotransferase (ALT/GPT) Activity Fluorometric Assay Kit	96T, 48T	Fluorescence Microplate Reader	Serum, Plasma, Animal Tissue	Enzyme Activity	ALT catalyze the amino conversion reaction between alanine and α-ketoglutaric acid to produce pyruvic acid and glutamic acid. Under the action of pyruvate oxidase, pyruvic acid generates H2O2, which reacts with the non-fluorescent substance to form fluorescent substance under the action of peroxidase. The activity of ALT can be calculated by measuring the increase of fluorescence	0.01 U/L	0.01-0.83 U/L	Enzymes,Liver Biomarkers

						value at the excitation wavelength of 535 nm and the emission wavelength of 590 nm.			
E-BC-K057-M	Albumin (ALB) Colorimetric Assay Kit (Bromocresol Green Method)	96T, 48T	Microplate reader	Serum, Plasma	Quantitative	Bromocresol green (BCG) is widely used as protein staining agent. BCG can combine the albumin in pH 4.0~4.2 to form an albumin-BCG complex. And the color changed from yellow to green. The depth of color is proportional to the concentration of albumin. The content of albumin in serum can be calculated indirectly by measuring the OD value at 630 nm.	0.08 g/L	0.08-15 g/L	Liver Biomarkers, Amino acids & proteins
E-BC-K057-S	Albumin (ALB) Colorimetric Assay Kit (Bromocresol Green Method)	100Assays, 50Assays	Spectrophotometer	Serum, Plasma	Quantitative	Bromocresol green (BCG) can combine with the albumin in pH 4.0~4.2 to form an albumin-BCG complex, which is yellowish-green. The depth of yellowish-green is proportional to the concentration of albumin. The serum albumin concentration can be calculated by measuring the OD value at 628 nm.	0.50 g/L	0.50-70 g/L	Liver Biomarkers, Amino acids & proteins
E-BC-K091-M	Alkaline Phosphatase (ALP) Activity Assay Kit	96T, 500Assays	Microplate reader	Serum, Plasma, tissue, cells	Enzyme Activity	Alkaline phosphatase decompose benzene disodium phosphate to produce free phenol and phosphoric acid. Phenol react with 4-aminopyrline in alkaline solution and oxidizes with potassium ferricyanide to form red quinone derivative. The enzyme activity can be calculated indirectly by measuring the OD value.	0.13 King unit/100 m	0.13-50 King unit/10	Enzymes,Liver Biomarkers
E-BC-K091-S	Alkaline Phosphatase (ALP) Activity Assay Kit	100Assays, 500Assays	Spectrophotometer	Serum, Plasma, Urine, tissue, cells	Enzyme Activity	Alkaline phosphatase decompose benzene disodium phosphate to produce free phenol and phosphoric acid. Phenol react with 4-aminopyrline in alkaline solution and oxidizes with potassium ferricyanide to form red quinone derivative. The enzyme activity can be calculated indirectly by measuring the OD value.	0.2 King unit/100 mL	0.2-55.6 King unit/1	Enzymes,Liver Biomarkers
E-BC-K009-M	Alkaline Phosphatase (ALP) Activity Assay Kit (PNPP method)	96T, 500Assays	Microplate reader	Serum, Plasma, Animal Tissue	Enzyme Activity	Alkaline phosphatase (ALP) is a group of cytomembrane-related enzymes with hydrolysis and transfer activity, acting on a variety of phosphate substrates. ALP is a homologous dimerase and each catalytic site contains three metal ions. There are four isozymes in humans: tissue nonspecific ALP, intestinal ALP, placental ALP and genital cell ALP.	0.27 U/L	0.27-50.8 U/L	Enzymes,Liver Biomarkers
E-BC-K003-S	Angiotensin Converting Enzyme (ACE) Activity Assay Kit	100Assays	Serum, plasma, animal tissue	Enzymes, Others	10-90 min	N-[3-(2-furyl)acryloyl]-L-phenylalanylglycylglycine (FAPGG) have the maximum absorption peak at 340 nm, angiotensin converting enzyme catalyze N-(3[2-Furyl]Acryloyl)-Phe-Gly-Gly to produce FAP and GG, and the absorbance at 340 nm will be decreased. The activity of ACE can be calculated indirectly by measuring the	27.5- 682 U/L		Enzyme Activity

						decrease in absorbance at 340 nm.			
E-BC-K353-S	Ascorbate Peroxidase (APX) Activity Assay Kit	100Assays, 50Assays	Spectrophotometer	Plant tissue	Enzyme Activity	Ascorbate Peroxidase (APX) can catalyze the reaction between ascorbic acid (ASA) and hydrogen peroxide (H2O2), and ASA can be oxidized to monodehydroascorbic acid (MDASA). The absorbance of solution at 290 nm will decline as the oxidation of ASA. The APX activity can be calculated by detecting the decrease of A290.	0.071 U/g tissue	0.071-47 U/g tissue	Enzymes,Plant stress resistance
E-BC-K236-S	Aspartate Amino transferase (AST/GOT) Activity Assay Kit (Reitman-Frankel Method)	100 Assays	Serum, plasma, animal tissue	Enzymes, Liver Biomarkers	100 min	AST enables alpha-ketoglutaric acid and aspartic acid to displace amino to form glutamic acid and oxaloacetic acid. Oxaloacetic acid can decarboxylate itself to form Pyroracemic acid during the reaction. Pyroracemic acid reacted with 2,4-dinitrophenylhydrazine (DNPH) to form 2,4-dinitrophenylhydrazone showing reddish brown in alkaline solution. Measure the OD values and calculate the enzyme activity.	0.38-72.30 IU/L		Enzyme Activity
E-BC-K236-M	Aspartate Aminotransferase (AST/GOT) Activity Assay Kit (Reitman-Frankel Method)	96T, 48T	Microplate reader	Serum, Plasma, Animal Tissue, cells, cell culture supernatant	Enzyme Activity	AST/GOT enables alpha-ketoglutaric acid and aspartic acid to displace amino and keto groups to form glutamic acid and oxaloacetic acid. Oxaloacetic acid can decarboxylate itself to form Pyroracemic acid during the reaction. Pyroracemic acid reacted with 2,4-dinitrophenylhydrazine(DNPH) to form 2,4, dinitrophenylhydrazone showing reddish brown in alkaline solution. Measure the OD values and calculate the enzyme activity.	1.1 IU/L	1.1-72.3 IU/L	Enzymes,Liver Biomarkers
E-BC-F002	ATP Chemiluminescence Assay Kit	96T, 48T	Chemiluminescence immunoassay analyzer, Multifunctional microplate reader	Animal Tissue	Quantitative	Under the catalyzation of luciferase, ATP react with luciferin and emits fluorescence, and the fluorescence intensity is proportional to the concentration of ATP within a certain range.	0.003 μmol/L	0.003-10 μmol/L	Oxidative stress
E-BC-K157-M	ATP Colorimetric Assay Kit	96T, 48T	Microplate reader	Animal Tissue, cells	Quantitative	Creatine kinase catalyzes adenosine triphosphate and creatine to produce creatine phosphate. The content of phosphocreatine was determined by colorimetric method to reflect the content of ATP.	0.01 mmol/L	0.03-1.5 mmol/L	Oxidative stress
E-BC-K157-S	ATP Colorimetric Assay Kit	100Assays, 50Assays	Spectrophotometer	Tissue, cells	Quantitative	Creatine Kinase catalyzes adenosine triphosphate and creatine to produce creatine phosphate, then detected by phosphomolybdic acid colorimetry.	0.01 mmol/L	0.01-1.5 mmol/L	Oxidative stress
E-BC-K318-M	BCA Protein Colorimetric Assay Kit	96T, 500Assays	Microplate reader	Serum, Plasma, cell	Quantitative	Cu2+ can be reduced to Cu+ by protein in alkaline condition. Cu+ can combine with BCA reagent and form	0.0165 mg/mL	0.0165-1 mg/mL	Amino acids & proteins

				culture supernatant, tissue, cells		purple complex, which has a maximum absorption peak at 562 nm. The absorbance value is proportional to the protein concentration. Therefore, the protein concentration can be calculated according to the OD value.			
E-BC-K165-M	Biuret Protein Colorimetric Assay Kit	96T, 500Assays	Microplate reader	Serum, Plasma, tissue	Quantitative	Any compound that contains two -CONH2 in the molecule can react with alkaline copper solution to form a purple complex, which is known as the biuret reaction. Many peptide bonds (-CONH-) in protein molecules can perform this reaction, and the color degree of all kinds of proteins are essentially the same.	0.58 g/L	0.58-100 g/L	Amino acids & proteins,Liver Biomarkers
E-BC-K165-S	Biuret Protein Colorimetric Assay Kit	100Assays, 500Assays	Spectrophotometer	Serum, Plasma, tissue	Quantitative	Any compound that contains two -CONH2 in the molecule can react with alkaline copper solution to form a purple complex, which is known as the biuret reaction. Many peptide bonds (-CONH-) in protein molecules can perform this reaction, and the color degree of all kinds of proteins are essentially the same.	0.373 g/L	0.373-80 g/L	Amino acids & proteins,Liver Biomarkers
E-BC-K145-M	Blood Ammonia Colorimetric Assay Kit	96T, 48T	Microplate reader	Serum, Plasma	Quantitative	Blood protein can be precipitated with protein precipitator, and enzyme activity will be destroyed, which can prevent the formation of free ammonia in vitro. Most interfering color substances were removed at the same time, indigo was formed in non-protein filtrate by Berthelot reaction, and the color depth was proportional to the content of blood ammonia. Blood ammonia content can be determined by comparing with standard solution.	0.01 mmol/L	0.01-2.5 mmol/L	Liver Biomarkers, Amino acids & proteins
E-BC-K145-S	Blood Ammonia Colorimetric Assay Kit	100Assays, 50Assays	Spectrophotometer	Serum, Plasma	Quantitative	Blood protein can be precipitated with protein precipitator, and enzyme activity will be destroyed, which can prevent the formation of free ammonia in vitro. Most interfering color substances were removed at the same time, indigo was formed in non-protein filtrate by Berthelot reaction, and the color depth was proportional to the content of blood ammonia. Blood ammonia content can be determined by comparing with standard solution.	0.01 mmol/L	0.01-2.0 mmol/L	Liver Biomarkers, Amino acids & proteins
E-BC-K168-M	Bradford Protein Colorimetric Assay Kit	96T, 500Assays	Microplate reader	Serum, Plasma, Animal Tissue	Quantitative	Coomassie brilliant blue G-250 is red under the free state, and it has the maximum absorbance at 465 nm. When the Coomassie brilliant blue G-250 combined to protein, the compound will have the maximum at 595 nm. The absorbance value is directly proportional to the protein	0.046 mg/mL	0.046-0.6 mg/mL	Amino acids & proteins,Liver Biomarkers

						content, so the concentration of total protein can be calculated directly by measuring the OD value at 595 nm.			
E-BC-K168-S	Bradford Protein Colorimetric Assay Kit	100Assays, 500Assays	Spectrophotometer	Serum, Plasma, Animal Tissue	Quantitative	Coomassie brilliant blue G-250 is red under the free state, and it has the maximum absorbance at 465 nm. When the Coomassie brilliant blue G-250 combined to protein, the compound will have the maximum at 595 nm. The absorbance value is directly proportional to the protein content, so the concentration of total protein can be calculated directly by measuring the OD value at 595 nm.	0.026 mg/mL	0.026-1.2 mg/mL	Amino acids & proteins,Liver Biomarkers
E-BC-K212-S	Ca^{2+}-ATPase Activity Assay Kit	100 Assays, 50 Assays	Spectrophotometer	Animal Tissue	Enzyme Activity	ATPase exists on the membrane of tissue cells and organelles. It is a kind of protease on the biological membrane which plays an important role in material transport, energy conversion and information transmission. Ca2+ which participates in the regulation of different enzyme systems and cell activities plays many important roles in cells. The flow of Ca2+ depends on the Ca2+ -ATPase on the cell membrane, and Ca2+ -ATPase consumes ATP to generate the energy needed for ion transport.	0.8 U/g wet weight	0.8-41 U/g wet weight	Enzymes,Oxidative stress
E-BC-K103-M	Calcium (Ca) Colorimetric Assay Kit	96T, 48T	Microplate reader	Serum, Plasma, Urine, cell culture supernatant, tissue, cells	Quantitative	Calcium ion in the sample bind to Methyl Thymol Blue (MTB) in alkaline solution and form blue complex. The blue complex has a specific absorption peak at 715nm and calcium content can be calculated by measuring the OD value at 610 nm.	0.07 mmol/L	0.07-1.2 mmol/L	Inorganic ions
E-BC-K031-M	Catalase (CAT) Activity Assay Kit	96T, 48T	Microplate reader	Serum, Plasma, cells, cell culture supernatant, tissue	Enzyme Activity	The reaction that catalase (CAT) decomposes H2O2 can be quickly stopped by ammonium molybdate. The residual H2O2 reacts with ammonium molybdate to generate a yellowish complex. CAT activity can be calculated by production of the yellowish complex at 405 nm.	1.12 U/mL	1.12 -150 U/mL	Enzymes,Oxidative stress
E-BC-K031-S	Catalase (CAT) Activity Assay Kit	100Assays, 50Assays	Spectrophotometer	Serum, Plasma, cells, tissue	Enzyme Activity	The reaction that catalase (CAT) decomposes H2O2 can be quickly stopped by ammonium molybdate. The residual H2O2 reacts with ammonium molybdate to generate a yellowish complex. CAT activity can be calculated by production of the yellowish complex at 405 nm.	0.27 U/mL	0.27-155.4 U/mL	Enzymes,Oxidative stress
E-BC-F006	Catalase (CAT) Activity Fluorometric Assay Kit	96T	Fluorescence Microplate Reader	Serum, Plasma, Animal Tissue	Enzyme Activity	Catalase can decompose H2O2 to generate H2O and O2, the residual H2O2 in the detection system react with the fluorescent substance, and the content of residual H2O2 is proportional to the fluorescence intensity at the excitation wavelength of 535 nm and emission wavelength of 587 nm, the catalase activity is inversely proportional	0.01 U/L	0.01-6.51 U/L	Enzymes,Oxidative stress

						to the fluorescence intensity.			
E-BC-K189-M	Chlorine (Cl) Colorimetric Assay Kit	96T, 48T	Microplate reader	Serum, Plasma, Animal Tissue	Quantitative	Chloride ion in biological fluids are replaced by the mercury ions in mercury thiocyanate through ion replacement, which resulted in the formation of difficult-to-dissociate mercury chloride. The substituted thiocyanate ions were combined with ferric nitrate to form a red complex. The content of chlorine ion can be calculated indirectly by measuring the OD value at 460 nm.	1 mmol/L	1.0-60 mmol/L	Inorganic ions
E-BC-K125-M	Choline Acetyltransferase (ChAT) Activity Assay Kit (Tissue Samples)	96T, 48T	Microplate reader	Animal Tissue	Enzyme Activity	Acetyl-CoA can react with choline under the catalysis of choline acetyltransferase (ChAT) to produce coenzyme A (CoA), CoA can combine with the 4, 4-dithiopyridine. The activity of ChAT can be calculated indirectly by measuring the OD value at 324 nm.	1.21 U/g fresh weigh	1.21-40 U/g fresh we	Enzymes,Others
E-BC-K125-S	Choline Acetyltransferase (ChAT) Activity Assay Kit (Tissue Samples)	100Assays, 50Assays	Spectrophotometer	Animal Tissue	Enzyme Activity	Acetyl-CoA can react with choline under the catalysis of choline acetyltransferase (ChAT) to produce coenzyme A (CoA), CoA can combine with the 4, 4-dithiopyridine. The activity of ChAT can be calculated indirectly by measuring the OD value at 324 nm.	1.21 U/g fresh weigh	1.21-40 U/g fresh we	Enzymes,Others
E-BC-K052-S	Cholinesterase (CHE) Activity Assay Kit	100Assays, 50Assays	Spectrophotometer	Whole blood, serum, Plasma, tissue, cells	Enzyme Activity	Cholinesterase breaks down acetylcholine into choline and acetic acid. Acetylcholine that is not hydrolyzed by cholinesterase reacts with basic hydroxylamine to form acetamidamine. It reacts in an acidic solution to form a brown-red hydroxamate iron complex. The color depth is directly proportional to the amount of remaining acetylcholine, which can be colorimetrically quantified. Cholinesterase activity was calculated.	1.17 U/mL	1.17-160 U/mL	Enzymes,Liver Biomarkers
E-BC-K351-M	Citric Acid (CA) Colorimetric Assay Kit	96T, 48T	Microplate reader	Serum, Plasma, Animal Tissue, mitochondria	Quantitative	In biochemistry, citric acid is an intermediate in the citric acid cycle and plays an important role in metabolism. Citric acid levels in blood and urine are affected by factors such as age, gender, diet, citric acid precursors, and parathyroid hormone and sex hormones.	0.06 mmol/L	0.06-2.0 mmol/L	Others
E-BC-K351-S	Citric Acid (CA) Colorimetric Assay Kit	100Assays, 50Assays	Spectrophotometer	Tissue, mitochondria, other liquid samples	Quantitative	In acidic condition, Cr (Ⅵ) will be reduced to Cr3+, Cr3+ reacts with citric acid. And the product has a characteristic absorption peak at 545 nm, therefore the content of citric acid in sample can be calculated by measuring the absorbance value at 545 nm.	0.05 mmol/L	0.05-5.0 mmol/L	Tricarboxylic Acid（TCA）Cycle
E-BC-K300-M	Copper (Cu) Colorimetric Assay Kit	96T, 48T	Microplate reader	Serum, Plasma	Quantitative	In acidic condition, the copper ion in the sample react with 3,5-DiBr-PAESA to form a purple complex which has a maximum absorption peak at 580 nm. And copper ion	1.84 μmol/L	1.84-60 μmol/L	Inorganic ions

						content can be calculated indirectly by measuring the OD value at 580 nm.			
E-BC-K558-S	Creatine kinase (CK) Activity Assay Kit	100Assays, 50Assays	Spectrophotometer	Serum, Plasma, Animal Tissue, cells	Enzyme Activity	Creatine kinase (CK) catalyze creatine phosphate and ADP to produce creatine and ATP. Hexokinase catalyze creatine and glucose to produce glucose-6-phosphate. Glucose-6-phosphate dehydrogenase (G-6-PD) catalyze glucose-6-phosphate and NADP+ to produce NADPH which have a maximum absorption peak at 340 nm. The CK activity can be calculated by measuring the OD values at 340 nm.	3.7 U/L	3.7-160 U/L	Enzymes,Others
E-BC-K188-M	Creatinine (Cr) Colorimetric Assay Kit (Sarcosine Oxidase Method)	96T, 48T	Microplate reader	Serum, Plasma, Urine	Quantitative	Creatinine (Cr) can be catalyzed by creatinase and generates creatine. Creatine can be hydrolyzed into sarcosine and urea by creatinase. The sarcosine can be catalyzed by sarcosine oxidase and form glycine, formaldehyde and hydrogen peroxide. The reaction between hydrogen peroxide, 2,4-(6-Tri-iodine-3-hydroxybenzoic acid) and 4-ampyrone can be catalyzed by peroxidase and form pink compound. Creatinine content can be calculated indirectly by measuring the OD value at 515 nm.	9.4 μmol/L	38.2-800 μmol/L	Kidney Biomarkers
E-BC-K022-M	CuZn/Mn Superoxide Dismutase (CuZn-SOD/Mn-SOD) Activity Assay Kit (Hydroxylamine Method)	96T, 48T	Microplate reader	Serum, Plasma, Urine, cells, cell culture supernatant, tissue	Enzyme Activity	Superoxide anion (O2•-) produced by xanthine and xanthine oxidase system can oxidize hydroxylamine to form nitrite which appear purplish red after chromogenic reaction. The SOD in the sample has a specific inhibitory effect on superoxide anion (O2•-), can reduce the content of nitrite. The OD value is lower than control and the activity of SOD is calculated through the formula. There are two kinds of SOD (CuZn-SOD, Mn-SOD) in the cells of higher animals, and the sum of them is equal to the total SOD. The activity of Mn-SOD in the sample will lost after sample pretreatment, but the activity of CuZn-SOD will not.	1.35 U/mL	1.35-62 U/mL	Enzymes,Oxidative stress
E-BC-K022-S	CuZn/Mn Superoxide Dismutase (CuZn-SOD/Mn-SOD) Activity Assay Kit (Hydroxylamine Method)	100Assays, 50Assays	Spectrophotometer	Serum, Plasma, Urine, cells, cell culture supernatant, tissue	Enzyme Activity	Superoxide anion (O2•-) produced by xanthine and xanthine oxidase system can oxidize hydroxylamine to form nitrite which appear purplish red after chromogenic reaction. The SOD in the sample has a specific inhibitory effect on superoxide anion (O2•-), can reduce the content of nitrite. The OD value is lower than control and the activity of SOD is calculated through the formula. There are two kinds of SOD (CuZn-SOD, Mn-SOD) in the cells of higher animals, and the sum of them is equal to the total	2.03 U/mL	2.03-155 U/mL	Enzymes,Oxidative stress

						SOD. The activity of Mn-SOD in the sample will lost after sample pretreatment, but the activity of CuZn-SOD will not.			
E-BC-K352-M	Cysteine (Cys) Colorimetric Assay Kit	96T, 48T	Microplate reader	Serum, Plasma, Animal Tissue, cells	Quantitative	Phosphotungstic acid can be reduced by Cys and form tungsten blue, which has an absorption peak at 600 nm. Cys content can be calculated with the absorbance at 600 nm.	0.03 mmol/L	0.07-2.0 mmol/L	Amino acids & proteins
E-BC-K761-M	Direct Bilirubin (DBIL) Colorimetric Assay Kit	96T, 48T	Microplate reader	Animal serum	Quantitative	Bilirubin is one of the important components of bile. It is the degradation product of hemoglobin in various heme proteins under the action of a series of enzymes. It is important to the digestion and absorption of lipids and the formation of yellow distemper. Bilirubin comes in two forms: water-soluble and water-insoluble. Bilirubin has powerful antioxidant, anti-inflammatory and autoimmune properties. The concentration of bilirubin in human body is related to sex, drug intake, age and so on. Low serum bilirubin is directly related to diabetes, metabolic syndrome, cardiovascular disease and other pathological states. However, high bilirubin is indicative of hemolysis, jaundice, Gilbert syndrome, hepatitis, drug toxicity, and possible bile duct obstruction.	0.6 μmol/L	0.6-50 μmol/L	Liver Biomarkers
E-BC-K081-M	Direct bilirubin (D-BIL) Colorimetric Assay Kit (Chemical Oxidation Method)	96T	Microplate reader			#N/A			Liver Biomarkers
E-BC-K002-M	D-Lactic Acid/Lactate Colorimetric Assay Kit	96T, 48T	Microplate reader	Serum, Plasma, Animal Tissue	Quantitative	Using NAD+ as H+ receptor, D-lactate dehydrogenase (LDH) catalyzes the reaction of D-lactic acid and NAD+ to generate pyruvic acid and NADH respectively. NBT is reduced to a kind of purple compound during the reaction. Measure the OD value at 530 nm, and the concentration of D-lactic acid can be calculated.#N/A	0.06 mmol/L	0.06-8.0 mmol/L	Glycolysis & Carbohydrates
E-BC-K018-S	D-Xylose Colorimetric Assay Kit	100Assays, 50Assays	Spectrophotometer	Serum, Plasma, Urine	Quantitative	D-xylose can produce furfural by dehydration in strong acid solution. The generated furfural reacts with Phloroglucinol to form pink compounds. The content of D-xylose can be calculated by colorimetric assay at 554 nm.	0.007 mmol/L	0.007-4 mmol/L	Glycolysis & Carbohydrates
E-BC-K891-M	Ethanol Colorimetric Assay Kit	96T, 48T	Microplate reader	Serum, Plasma, wine	Quantitative	Ethanol dehydrogenase can catalyze oxidative dehydrogenation of ethanol to acetaldehyde, and NAD+ is reduced to produce NADH. NADH, under the action of 1-mPMS, transfer electrons to WST-8 to produce the yellow product, which has a characteristic absorption peak at 450	0.27 μmol/mL	0.27-17.0 μmol/mL	Others

						nm. Therefore, ethanol content can be quantified by measure the OD value at 450 nm.			
E-BC-K304-S	Ferrous Ion Colorimetric Assay Kit	100 Assays, 50Assays	Spectrophotometer	Serum, Plasma, Animal Tissue	Quantitative	Under the action of acidic solution and reductant, ferric ions can be separated from transferrin in serum, and reduced into ferrous ions (Fe2+). The latter then bind to bipyridine and form pink complexes. The concentration of iron can be calculated by measuring the OD value at 520 nm indirectly.	0.08 mg/L	0.08-60 mg/L	Inorganic ions
E-BC-K773-M	Ferrous Iron Colorimetric Assay Kit	96T, 48T	Microplate reader	Serum, tissue, cells	Quantitative	Ferrous ions (Fe2+) in samples can bind with probe to form complexes, which has a maximum absorption peak at 593 nm. The concentration of iron can be calculated by measuring the OD value at 593 nm indirectly.	0.4 μmol/L	0.4-50 μmol/L	Inorganic ions
E-BC-K1100-M	Formate Colorimetric Assay Kit	96T	Microplate reader	Serum, Plasma, Animal Tissue	Quantitative	Formic acid is the simplest carboxylic acid, whose chemical formula is CH2O2. It is often used as an antimicrobial/preservative in livestock feed. Formic acid can block some of the decay processes in feed, making the nutritional value of feed maintain longer. Under normal circumstances, the physiological concentration of formic acid is low and easy to metabolize, but in the case of methanol poisoning, the concentration can reach 5 mmoL/L. Similarly, long-term exposure to excessive levels of formaldehyde can also increase the content of formic acid in blood and urine.	8.20 μmol/L	8.20-800 μmol/L	Others
E-BC-K004-M	Free Cholesterol (FC) Colorimetric Assay Kit	96T, 48T	Microplate reader	Serum, Plasma, tissue	Quantitative	Free cholesterol produces 4-cholestenone and hydrogen peroxide under the oxidation of cholesterol oxidase. In the presence of 4-aminoamylpyridine and phenol, peroxidase catalyze hydrogen peroxide to form red quinone compounds of benzoquinone imine phenizone. The color depth of the generated quinones is directly proportional to the cholesterol content.	0.07 mmol/L	0.07-24 mmol/L	Lipids metabolism
E-BC-F039	Free Fatty Acids (FFA) Fluorometric Assay Kit	96T, 48T	Fluorescence Microplate Reader	Serum, Plasma, Animal Tissue	Quantitative	Free fatty acids produce acyl coenzyme A in the presence of acyl synthase, which produces hydrogen Free fatty acids produce acyl coenzyme A in the presence of acyl synthase, which produces hydrogen peroxide in the presence of acyl oxidase. In the presence of the enzyme and probe, hydrogen peroxide react to produce the fluorescence substrate. The fluorescence intensity at the excitation wavelength of 535 nm and emission wavelength of 590 nm is directly proportional to the concentration of free fatty acids.	0.58 μmol/L	0.58-20 μmol/L	Lipids metabolism

E-BC-K134-S	Fructose Colorimetric Assay Kit	50Assays	Spectrophotometer			#N/A			Glycolysis & Carbohydrates,Amino acids & proteins
E-BC-K234-M	Glucose (Glu) Colorimetric Assay Kit (GOD-POD Method)	96T, 48T	Microplate reader	Serum, Plasma	Quantitative	Glucose oxidase can catalyze the oxidation of glucose to gluconic acid to produce hydrogen peroxide. In the presence of chromogenic oxygen receptors, peroxidase catalyzes hydrogen peroxide and oxidizes pigment sources to form colored substances. Measure the OD value at 505 nm and glucose content can be calculated indirectly.	0.04 mmol/L	0.04-30 mmol/L	Glycolysis & Carbohydrates
E-BC-K234-S	Glucose (Glu) Colorimetric Assay Kit (GOD-POD Method)	100Assays, 50Assays	Spectrophotometer	Serum, Plasma	Quantitative	Glucose oxidase can catalyze the oxidation of glucose to gluconic acid to produce hydrogen peroxide. In the presence of chromogenic oxygen receptors, peroxidase catalyzes hydrogen peroxide and oxidizes pigment sources to form colored substances. Measure the OD value at 505 nm and glucose content can be calculated indirectly.	0.05 mmol/L	0.05-30 mmol/L	Glycolysis & Carbohydrates
E-BC-F037	Glucose (GLU) Fluorometric Assay Kit	96T, 48T	Fluorescence Microplate Reader	Serum, Plasma, Urine	Quantitative	Glucose oxidase can catalyze the oxidation of glucose into gluconic acid and produce hydrogen peroxide. In the presence of peroxidase, hydrogen peroxide reacts with the non-fluorescent substance to form fluorescent substance. The glucose content can be calculated indirectly by measuring the fluorescence intensity at the excitation wavelength of 535 nm and the emission wavelength of 590 nm.	0.1 μmol/L	0.1-20 μmol/L	Glycolysis & Carbohydrates
E-BC-F041	Glucose Uptake Fluorometric Assay Kit	96T	Fluorescence microplate reader	Cells	Quantitative	2-DG is up-taken by the cells, converted to 2-DG-6P, which is catalyzed by glucose dehydrogenase to produce 6PDG. Meanwhile, NADP+ is converted to NADPH. The generated NADPH converts the probe into fluorescent substances under the action of myocardial yellow transferase. The glucose uptake can be calculated by measuring the fluorescence intensity at the excitation wavelength of 530 nm and the emission wavelength of 590 nm.	0.02 nmol/μL	0.02-0.5 nmol/μL	Others
E-BC-K011-M	Glucose-6-phosphate (G6P) Colorimetric Assay Kit	96T	Microplate reader	Serum, Plasma, Animal Tissue	Quantitative	Glucose-6-phosphate (G6P) is a molecule generated by phosphorylation of hydroxyl groups on the sixth carbon of glucose under the catalysis of hexokinase. It is a common small molecule of sugar metabolism in cells and participates in biochemical pathways such as glycolysis and pentose phosphate pathway. In the first reaction of glycolysis, glucose is catalyzed by hexokinase to produce	5.6 μmol /L	5.6-500 μmol/L	Glycolysis & Carbohydrates

						glucose-6-phosphate, which is then catalyzed by phosphoglucose isomerase to form fructose-6-phosphate to continue the other steps of glycolysis: In the pentose phosphate pathway, glucose-6-phosphate is the first substrate, and this process is also the main way to generate NADPH. In addition to these two metabolic pathways, glucose-6-phosphate can also be converted into glycogen or starch and stored.			
E-BC-K056-M	Glucose-6-Phosphate Dehydrogenase (G-6-PD) Activity Assay Kit	96T	Microplate reader	Serum, Plasma, Animal Tissue	Enzyme Activity	Under the presence of G6PDH, glucose-6-phosphoric acid is oxidized to 6-PG. In this reaction, NADP+ is reduced to NADPH. Under the action of electron coupling reagent 1-MPMS, NADPH reducts wST-8 to form orange formazan, which has the maximum absorption peak at about 450 nm. Formazan generated in the reaction system is proportional to the activity of G6DPH in the sample.	0.01 U/L		Enzymes,Glycolysis & Carbohydrates
E-BC-K118-M	Glutamic Acid Colorimetric Assay Kit	96T, 48T	Microplate reader	Serum, Plasma, Animal Tissue, cells, cell culture supernatant	Quantitative	Glutamate is a dicarboxylic acid, the most abundant amino acid in the cell, which can be converted into aminobutyric acid (GABA), ornithine, ketoglutarate, glucose or glutathione. Glutamate links carbohydrate and amino acid metabolism through the tricarboxylic acid (TCA) cycle. In the liver, it can regulate the rate of `ammonia to urea. In the central nervous system, it can act as an excitatory neurotransmitter.	6.43 μmol/L	6.43-407 μmol/L	Amino acids & proteins
E-BC-K118-S	Glutamic Acid Colorimetric Assay Kit	100Assays, 50Assays	Spectrophotometer	Serum, Plasma, Animal Tissue, cells, cell culture supernatant	Quantitative	Glutamic acid can react with NAD+ under the catalysis of glutamate dehydrogenase to produce α-ketoglutaric acid, NADH and NH4+. NADH has the maximum absorption at 340 nm. And glutamic acid content can be calculated by measuring the change of NADH.	4.00 μmol/L	4.00-450 μmol/L	Amino acids & proteins
E-BC-K096-M	Glutathione Peroxidase (GSH-Px) Activity Assay Kit	96T, 48T	Microplate reader	Serum, Plasma, cells, cell culture supernatant, tissue	Enzyme Activity	Glutathione peroxidase (GSH-Px) can promote the reaction of hydrogen peroxide (H2O2) and reduced glutathione to produce H2O and oxidized glutathione (GSSG). The activity of glutathione peroxidase can be expressed by the rate of enzymatic reaction. The activity of glutathione can be calculated by measuring the consumption of reduced glutathione. Hydrogen peroxide (H2O2) and reduced glutathione can react without catalysis of GSH-Px, so the portion of GSH reduction by non-enzymatic reaction should be subtracted. GSH can react with dinitrobenzoic acid to produce 5-thio-dinitrobenzoic acid anion, which showed a stable yellow	17.17 U	17.17-518.32 U	Enzymes,Oxidative stress

						color. Measure the absorbance at 412nm, and calculate the amount of GSH.			
E-BC-K096-S	Glutathione Peroxidase (GSH-Px) Activity Assay Kit	100Assays, 50Assays	Spectrophotometer	Serum, Plasma, cells, cell culture supernatant, tissue	Enzyme Activity	Glutathione peroxidase (GSH-Px) can promote the reaction of hydrogen peroxide (H2O2) and reduced glutathione to produce H2O and oxidized glutathione (GSSG). The activity of glutathione peroxidase can be expressed by the rate of enzymatic reaction. The activity of glutathione can be calculated by measuring the consumption of reduced glutathione. Hydrogen peroxide (H2O2) and reduced glutathione can react without catalysis of GSH-Px, so the portion of GSH reduction by non-enzymatic reaction should be subtracted. GSH can react with dinitrobenzoic acid to produce 5-thio-dinitrobenzoic acid anion, which showed a stable yellow color. Measure the absorbance at 412nm, and calculate the amount of GSH.	12.65 U	12.65-387 U	Enzymes,Oxidative stress
E-BC-K099-S	Glutathione Reductase (GR) Activity Assay Kit	100Assays, 50Assays	Spectrophotometer	Serum, Plasma, tissue, cells	Enzyme Activity	With the coenzyme as hydrogen donor, GSSG can be reduced to GSH under the catalysis of GR. Then the GSH content increased and NADPH decreased. The decrease of NADPH absorbance can be measured at 340 nm. The activity of GR can be calculated by detecting the change of NADPH.	6.2 U/L	6.2-320 U/L	Enzymes,Oxidative stress
E-BC-K172-S	Glutathione Reductase Activity Coefficient (GRAC) Colorimetric Assay Kit	100Assays	Spectrophotometer			#N/A			Oxidative stress
E-BC-K278-S	Glutathione-S-Transferase (GST) Activity Assay Kit	100Assays, 50Assays	Spectrophotometer	Serum, Plasma, tissue, cells	Enzyme Activity	GST can catalyze the binding of reduced glutathione (GSH) to dinitrobenzene (CDNB) and the product have an absorption peak at 340 nm. The activity of GSH-ST can be calculated by measuring the increasing rate of absorbance at 340 nm.	1 U/L	1-79 U/L	Enzymes,Oxidative stress,Liver Biomarkers
E-BC-K800-M	Glutathione-S-Transferase (GST) Activity Assay Kit(DTNB method)	96T	Microplate reader	Serum, Plasma, Animal Tissue	Enzyme Activity	Glutathione S-transferase is a kind of enzyme related to liver detoxification, which is often used as an indicator of liver injury. GST can resist the damage of endogenous and exogenous electronophilic substances, and plays an important role in the anti-tumor process.	2.1 U/L	2.1-92.8 U/L	Enzymes,Oxidative stress,Liver Biomarkers
E-BC-F040	Glycogen Fluorometric Assay Kit	96T	Fluorescence microplate reader	Animal liver and muscle tissue	Quantitative	Glycogen produces glucose under the action of starch glycosidase, and glucose is catalyzed by glucose oxidase to produce hydrogen peroxide. In the presence of the peroxidase, hydrogen peroxide be oxidized to produce the	0.06 μg/mL	0.06-4.0 μg/mL	Glycolysis & Carbohydrates

						fluorescence substrate. The fluorescence intensity at the excitation wavelength of 535 nm and emission wavelength of 587 nm is proportional to the glycogen content.			
E-BC-K073-S	Glycogen Colorimetric Assay Kit (Liver/Muscle Samples)	100Assays, 50Assays	Spectrophotometer	Animal liver, muscle	Quantitative	Under the presence of concentrated sulfuric acid, glycogen can be dehydrated to furfural derivatives. Furfural derivatives can form blue compound with anthracenone. The concentration of the compound can be measured by colorimetric quantification at 620 nm with glucose standard buffer of same treatment. Glycogen is quite stable in concentrated alkali solution. Heating the tissue sample in concentrated alkali solution before color development will remove other components and keep the glycogen.	1.80 mg/g liver tiss	1.80-180 mg/g liver	Glycolysis & Carbohydrates
E-BC-K692-S	Glycolate Oxidase Activity Assay Kit	100 Assays, 50 Assays	Spectrophotometer	plant tissue	Enzyme Activity	Glycolate oxidase catalyzes sodium glycolate substrate to form glyoxylic acid, which reacts with phenylhydrazine hydrochloride to form phenylhydrazone glyoxalate. The substance has an absorption peak at 324 nm, and its OD value is proportional to the concentration of phenylhydrazone glyoxalate in a certain range, and the amount of phenylhydrazone generated reflects the activity of glycolate oxidase.	0.3 U/mL	0.3-350 U/mL	Enzymes
E-BC-K122-S	H^+K^+-ATPase Activity Assay Kit	100Assays, 200Assays	Spectrophotometer	Animal Tissue, cells	Enzyme Activity	ATPase can decompose ATP to produce ADP and inorganic phosphorus. The activity of ATPase can be expressed by measuring the production amount of inorganic phosphorus in unit time. The inorganic phosphorus reacts with ammonium molybdate in acidic solution to form ammonium molybdate compound, which is reduced with reducing agent to form molybdenum blue, and has absorption peak at 660 nm. Determine the concentration of molybdenum blue to calculate the amount of inorganic phosphorus.			Enzymes,Oxidative stress
E-BC-K355-M	H2S Colorimetric Assay Kit	96T, 48T	Microplate reader	Serum, Plasma, Animal Tissue	Quantitative	H2S can react with acetate solution to form ZnS which can be dissolved in alkaline solution. In the presence of Fe3+, methylene blue can be formed. Methylene blue has a maximum absorption peak at 665 nm. H2S content can be calculated indirectly by measuring the OD value at 665 nm.	6.73 μmol/L	6.82-100 μmol/L	Others
E-BC-K221	High-density Lipoprotein Cholesterol (HDL-C) Colorimetric Assay Kit	96T	Microplate reader, Biochemistry	Serum, Plasma, cells, culture	Quantitative	The generated red purple pigment have a maximum absorption peak at 546 nm. Measure the OD value at 546 nm and the HDL-C content in the sample can be		0.065-3.8 mmol/L	Lipids metabolism

	(Double reagents)		analyzer	supernatant, tissue		calculated.			
E-BC-K222-S	High-density Lipoprotein Cholesterol (HDL-C) Colorimetric Assay Kit (Double reagents)	100Assays	Spectrophotometer	Serum, Plasma, cells, culture supernatant, tissue	Quantitative	The generated red purple pigment have a maximum absorption peak at 546 nm. Measure the OD value at 546 nm and the HDL-C content in the sample can be calculated.		0.065-3.8 mmol/L	Lipids metabolism
E-BC-K143	Homocysteine (Hcy) Colorimetric Assay Kit (Enzyme Circulation Method)	100Assays	Biochemistry analyzer, Spectrophotometer	Serum	Quantitative	Oxidized homocysteine (HCY) is reduced to free homocysteine by triethyl phosphine (TCEP), and the free homocysteine reacts with substrate to generate adenosine. The generated adenosine is immediately dehydrogenated into inosine and ammonia, and the ammonia is further react with NADH under the catalysis of glutamate dehydrogenase to convert NADH to NAD+. The decrease in absorbance at 340 nm caused by the decline of NADH is proportional to the concentration of homocysteine in the sample.		0-50 μmol/L	Amino acids & proteins
E-BC-K102-M	Hydrogen Peroxide (H_2O_2) Colorimetric Assay Kit	96T, 48T	Microplate reader	Serum, Plasma, Urine, tissue, cells	Quantitative	Hydrogen peroxide can react with ammonium molybdate to form a yellow complex which has a maximum absorption peak at 405 nm. H2O2 content can be calculated by measuring the absorbance value at 405 nm.	0.41 mmol/L	0.41-125 mmol/L	Oxidative stress
E-BC-K102-S	Hydrogen Peroxide (H_2O_2) Colorimetric Assay Kit	100Assays, 50Assays	Spectrophotometer	Serum, Plasma, cell culture supernatant, tissue, cells	Quantitative	Hydrogen peroxide can react with ammonium molybdate to form a yellow complex which has a maximum absorption peak at 405 nm. H2O2 content can be calculated by measuring the absorbance value at 405 nm.	1.5 mmol/L	1.5-150 mmol/L	Oxidative stress
E-BC-F001	Hydrogen Peroxide (H2O2) Fluorometric Assay Kit	96T, 48T	Fluorescence Microplate Reader	Serum, Plasma, tissue, cells	Quantitative	In the presence of peroxidase, hydrogen peroxide reacts with the fluorescent probe, and the fluorescence intensity at the excitation wavelength of 535 nm and the emission wavelength of 587 nm is proportional to the hydrogen peroxide concentration.	0.02 μmol/L	0.02-10 μmol/L	Oxidative stress
E-BC-K042-S	Hydroxyl Free Radical (-OH) Colorimetric Assay Kit	50Assays	Spectrophotometer			#N/A			Oxidative stress
E-BC-K527-M	Hydroxyl Free Radical Scavenging Capacity Assay Kit	96T, 48T	Microplate reader	Serum, Plasma, Animal Tissue	Quantitative	Hydroxyl radical is a kind of reactive oxygen species, which can kill red blood cells, degrade DNA, cell membrane and polysaccharide compounds, causing damage to cell structure and function, and then leading to metabolic disorders in the body to cause diseases. The scavenging ability of hydroxyl free radical is one of the important			Oxidative stress

						indexes of the antioxidant ability of samples. It has been widely used in the research of antioxidant health care products and drugs.			
E-BC-K062-S	Hydroxyproline (Hyp) Colorimetric Assay Kit (Acid hydrolysis Method)	50Assays	Spectrophotometer	Animal Tissue	Quantitative	Hydroxyproline can produce oxidation product under the action of oxidizing agent. The generated oxidation product can react with dimethylaminobenzaldehyde and present burgundy. The concentration of hydroxyproline can be calculated by measuring the OD value at 550 nm.	0.01μg/mL	0.01-20μg/mL	Amino acids & proteins
E-BC-K061-S	Hydroxyproline (Hyp) Colorimetric Assay Kit (Alkali hydrolysis Method)	50Assays	Spectrophotometer	Serum (Plasma), tissue, cells, culture supernatant, body fluids	Quantitative	The oxidation product which produced by hydroxyproline under the action of oxidant react with dimethylaminobenzaldehyde and show a purplish red color. The content of hydroxyproline can be calculated by measuring the OD value at 550 nm.	0.01μg/mL	0.01-20μg/mL	Amino acids & proteins
E-BC-K001-M	Inhibition And Production Of Superoxide Anionic Colorimetric Assay Kit (WST-1 Method)	96T, 48T	Microplate reader	Serum, Plasma, Urine, cells, cell culture supernatant, leucocyte	Activity	Superoxide anion free radicals are produced through the reaction system of xanthine and xanthine oxidase. WST-1 (a water-soluble tetrazolium salt) can react with the generated superoxide anion to produce water-soluble formazan. When the tested sample contains the superoxide anion free radical inhibitor, it can inhibit the formation of formazan. When the tested sample contains the substance that produces superoxide anion free radical, it can promote the formation of formazan dye. By colorimetric analysis of WST-1 products, the units of activity of inhibition or production of superoxide anion radical in samples can be calculated.			Oxidative stress
E-BC-K139-M	Iron Colorimetric Assay Kit	96T, 48T	Microplate reader	Serum, tissue	Quantitative	Under the action of acidic solution and reductant, ferric ions can be separated from transferrin in serum, and reduced into ferrous ions (Fe2+). The latter then bind to bipyridine and form pink complexes. The concentration of iron can be calculated by measuring the OD value at 520 nm indirectly.	0.08 mg/L	0.29-10 mg/L	Inorganic ions
E-BC-K139-S	Iron Colorimetric Assay Kit	100Assays, 50Assays	Spectrophotometer	Serum, tissue	Quantitative	Under the action of acidic solution and reductant, ferric ions can be separated from transferrin in serum, and reduced into ferrous ions (Fe2+). The latter then bind to bipyridine and form pink complexes. The concentration of iron can be calculated by measuring the OD value at 520 nm indirectly.	0.072 mg/L	0.072-60 mg/L	Inorganic ions
E-BC-K131-M	Lactase Activity Assay Kit	96T	Microplate reader	Animal Tissue	Enzyme Activity	Lactase decomposes lactose to produce glucose. Under the action of enzyme, glucose produces hydrogen	3.94 U/mL	12.5-2000 U/mL.	Enzymes,Glycolysis &

						peroxide. In the presence of chromogenic oxygen receptors, peroxidase catalyzes hydrogen peroxide to produce colored substances. Lactase activity can be calculated by measuring the OD value at 505 nm.			Carbohydrates
E-BC-K131-S	Lactase Activity Assay Kit	50Assays	Spectrophotometer, Microplate reader	Glycolysis & Carbohydrates, Amino acids & proteins	70 min				#N/A
E-BC-K046-M	Lactate Dehydrogenase (LDH) Activity Assay Kit	96T	Microplate reader	Serum, Plasma, hydrothorax, tissue, cells	Enzyme Activity	Using coenzyme I as a hydrogen carrier, LDH catalyze lactic acid to produce pyruvate. Pyruvate reacted with 2, 4-dinitrophenylhydrazine to form pyruvate dinitrophenylhydrazone, which was red-brown in alkaline solution, and the color depth was proportional to pyruvate concentration. The activity of LDH could be calculated by measuring OD value.	6 U/L	6-1000 U/L	Enzymes,Glycolysis & Carbohydrates,Liver Biomarkers
E-BC-K046-S	Lactate dehydrogenase (LDH) Activity Assay Kit	100 Assays	Serum, plasma, tissue, cells	Enzymes, Glycolysis & Carbohydrates, Liver Biomarkers	Enzyme Activity	Lactate dehydrogenase (LDH) is an oxidoreductase. LDH catalyzes the conversion of lactate to pyruvic acid and back, as it converts NAD+ to NADH and back. LDH is composed of four subunits (tetramer). The two most common subunits are the LDH-M and LDH-H protein. LDH is released into the blood by cells after tissue damage or erythrocyte hemolysis. Extracellular LDH activity is used to detect cell damage or cell death.	4-400 U/L		
E-BC-K766-M	Lactate dehydrogenase (LDH) Activity Assay Kit (WST-8 method)	96T, 48T	Microplate reader	Serum, Plasma, Animal Tissue, hydrothorax, cells	Enzyme Activity	Lactate dehydrogenase (LDH) is an oxidoreductase. LDH catalyzes the conversion of lactate to pyruvic acid and back, as it converts NAD+ to NADH and back. LDH is composed of four subunits (tetramer). The two most common subunits are the LDH-M and LDH-H protein. LDH is released into the blood by cells after tissue damage or erythrocyte hemolysis. Extracellular LDH activity is used to detect cell damage or cell death	0.11 U/L	0.11-39.9 U/L	Enzymes,Glycolysis & Carbohydrates,Liver Biomarkers
E-BC-K771-M	Lactate Dehydrogenase (LDH) Cytotoxicity Colorimetric Assay Kit	96T, 500Assays	Microplate reader	Cells	Enzyme Activity	Lactate dehydrogenase catalyzes the reaction of lactic acid with NAD+ to produce pyruvic acid and NADH. NADH, under the action of PMS, transfer electrons to WST-8 to produce the yellow product, which has a characteristic absorption peak at 450 nm. Therefore, LDH activity can be quantified by measure the OD value at 450 nm.			Enzymes,Others
E-BC-K568-M	Leucine Aminopeptidase (LAP) Activity Assay Kit	96T, 48T	Microplate reader	Serum, Plasma, Animal Tissue	Enzyme Activity	LAP can catalyze the substrate L-leucine-4-nitroaniline to produce p-nitroaniline, which has the maximum absorption peak at the wavelength of 405 nm. The	5.2 U/L	5.2-201.8 U/L	Enzymes,Liver Biomarkers

						enzyme activity of LAP can be calculated by measuring the increasing OD value of the system.			
E-BC-K087-S	Lipase (LPS) Activity Assay Kit	50Assays	Spectrophotometer			#N/A			Lipids metabolism
E-BC-K176-M	Lipid Peroxide (LPO) Colorimetric Assay Kit	96T, 48T	Microplate reader	Serum, Plasma, Urine, tissue	Quantitative	With 45℃ incubation for 60 min, one molecule of LPO react with two molecule of chromogenic reagent, to produce a stable chromophore which have the maximum absorption peak at 586nm. The content of LPO in samples can be calculated by standard curve or calculation formula.	0.70 μmol/L	0.70-80 μmol/L	Oxidative stress
E-BC-K044-M	L-Lactic Acid/Lactate (LA) Colorimetric Assay Kit	96T, 48T	Microplate reader	Serum, Plasma, cell culture supernatant, tissue, cells	Quantitative	Using NAD+ as H+ receptor, LDH catalyzes the reaction of lactic acid and NAD+ to generate pyruvic acid and NADH respectively. NBT is reduced to a kind of purple compound during the reaction. Measure the OD value at 530 nm, and the concentration of lactic acid can be calculated.	0.10 mmol/L	0.12-7.0 mmol/L	Glycolysis & Carbohydrates
E-BC-K044-S	L-Lactic Acid/Lactate (LA) Colorimetric Assay Kit	100Assays, 50Assays	Spectrophotometer	Serum, Plasma, cell culture supernatant, tissue, cells	Quantitative	Using NAD+ as hydrogen acceptor, LDH catalyzes the conversion of both lactate and NAD+ into pyruvic acid and NADH respectively. 1-Methoxy-5-methyl phenazine methyl sulfate (PMS) transfers hydrogen from NADH to NBT which deoxidize into purple chromogenic substrate. Lactic acid content can be calculated by measuring the OD value at 530 nm.	0.05 mmol/L	0.05-6.0 mmol/L	Glycolysis & Carbohydrates
E-BC-K043-S	L-Lactic Acid/Lactate (LA) Colorimetric Assay Kit (Whole Blood Samples)	100Assays, 50Assays	Spectrophotometer	Whole blood	Quantitative	Using NAD+ as hydrogen acceptor, LDH catalyzes the conversion of both lactate and NAD+ into pyruvic acid and NADH respectively. 1-Methoxy-5-methyl phenazine methyl sulfate (PMS) transfers hydrogen from NADH to NBT which deoxidize into purple chromogenic substrate. Lactic acid content can be calculated by measuring the OD value at 530 nm.	0.14 mmol/L	0.14-7.0 mmol/L	Glycolysis & Carbohydrates
E-BC-K205	Low-density Lipoprotein Cholesterol (LDL-C) Colorimetric Assay Kit (Double Reagents)	96T	Microplate reader, Biochemistry analyzer	Serum, Plasma, cells, culture supernatant, tissue	Quantitative	The coloured substance have a maximum absorption peak at 546 nm. Measure the OD value at 546 nm and the LDL-C content in the sample can be calculated.		0.2-12 mmol/L	Lipids metabolism
E-BC-K206-S	Low-density Lipoprotein Cholesterol (LDL-C) Colorimetric Assay Kit (Double Reagents)	100Assays	Spectrophotometer	Serum, Plasma, cells, culture supernatant, tissue	Quantitative	The coloured substance have a maximum absorption peak at 546 nm. Measure the OD value at 546 nm and the LDL-C content in the sample can be calculated.		0.2-12 mmol/L	Lipids metabolism
E-BC-K162-M	Magnesium (Mg)	96T, 48T	Microplate	Serum, Plasma	Quantitative	The magnesium in the serum reacts with the	0.18	0.18-2.50	Inorganic

	Colorimetric Assay Kit		reader			complexometric indicator (Calmagite) to form the Calmagite-Mg compound. The absorbance of this compound at 540 nm is proportional to the concentration of magnesium in the sample. The concentration of magnesium can be calculated by measuring the OD value at 540 nm.	mmol/L	mmol/L	ions
E-BC-K162-S	Magnesium (Mg) Colorimetric Assay Kit	100Assays, 50Assays	Spectrophotometer	Serum, Plasma	Quantitative	The magnesium in the serum reacts with the complexometric indicator (Calmagite) to form the Calmagite-Mg compound. The absorbance of this compound at 540 nm is proportional to the concentration of magnesium in the sample. The concentration of magnesium can be calculated by measuring the OD value at 540 nm.	0.12 mmol/L	0.12-2.50 mmol/L	Inorganic ions
E-BC-K048-S	Malic Dehydrogenase (MDH) Activity Assay Kit (Serum Samples)	50Assays	Spectrophotometer			#N/A			Tricarboxylic Acid（TCA）Cycle
E-BC-K028-M	Malondialdehyde (MDA) Colorimetric Assay Kit (Cell Samples)	500Assays,	Microplate reader	Cells	Quantitative	MDA in the catabolite of lipid peroxide can react with thiobarbituric acid (TBA) and produce red compound, which has a maximum absorption peak at 532 nm.	0.29 nmol/mL	0.29-100 nmol/mL	Oxidative stress
E-BC-K027-M	Malondialdehyde (MDA) Colorimetric Assay Kit (Plant Samples)	96T, 48T	Microplate reader	Plant tissue	Quantitative	MDA in the catabolite of lipid peroxide can react with thiobarbituric acid (TBA) and produce red compound, which has a maximum absorption peak at 532 nm.	0.52 μmol/L	0.52-120 μmol/L	Oxidative stress
E-BC-K027-S	Malondialdehyde (MDA) Colorimetric Assay Kit (Plant Samples)	100Assays, 50Assays	Spectrophotometer	Serum, Plasma, Animal Tissue	Quantitative	MDA in the catabolite of lipid peroxide can react with thiobarbituric acid (TBA) and produce red compound, which has a maximum absorption peak at 532 nm.	0.17 nmol/mL	0.17-120 nmol/mL	Oxidative stress
E-BC-K025-M	Malondialdehyde (MDA) Colorimetric Assay Kit (TBA Method)	96T, 48T	Microplate reader	Serum, Plasma, Animal Tissue	Quantitative	MDA in the catabolite of lipid peroxide can react with thiobarbituric acid (TBA) and produce red compound, which has a maximum absorption peak at 532 nm.	1.13 μmol/L	2.92-40 μmol/L	Oxidative stress
E-BC-K025-S	Malondialdehyde (MDA) Colorimetric Assay Kit (TBA Method)	100Assays, 50Assays	Spectrophotometer	Serum, Plasma, Animal Tissue	Quantitative	MDA in the catabolite of lipid peroxide can react with thiobarbituric acid (TBA) and produce red compound, which has a maximum absorption peak at 532 nm.	0.38 nmol/mL	0.38-133.33 nmol/mL	Oxidative stress
E-BC-K041-M	Maltase Activity Assay Kit	96T	Microplate reader	Animal Tissue	Enzyme Activity	Maltase catalyze the corresponding substrate to produce monosaccharide. Monosaccharide produce hydrogen peroxide under the action of oxidase. Hydrogen peroxide react with chromogenic agent to form red product. The activity of maltase can be calculated by detection the optical density with spectrophotometer at 505 nm.	6.32 U/mL	6.32-750 U/mL	Enzymes,Glycolysis & Carbohydrates
E-BC-K108-S	Microscale ATPase Activity Assay Kit (Red Blood Cells)	100Assays	Spectrophotometer			#N/A			Oxidative stress

E-BC-K008-M	Monoamine Oxidase (MAO) Activity Assay Kit	96T, 48T	Microplate reader	Serum, Plasma, Animal Tissue	Enzyme Activity	MAO can catalyze 4-dimethylambenzylamine to produce p-dimethylaminobenzaldehyde. p-Dimethylaminobenzaldehyde has a characteristic absorption peak at 355 nm. The activity of MAO can be calculated indirectly by analyzing the production of p-dimethylaminobenzaldehyde.	16 U/L	16 – 641 U/L	Enzymes,Liver Biomarkers
E-BC-K008-S	Monoamine Oxidase (MAO) Activity Assay Kit	100 Assays, 50Assays	Spectrophotometer	Serum, Plasma, Animal Tissue	Enzyme Activity	MAO can catalysis 4-dimethylambenzylamine to produce p-dimethylaminobenzaldehyde. p-Dimethylaminobenzaldehyde has a characteristic absorption peak at 355 nm. The activity of MAO can be calculated indirectly by analyzing the production of p-dimethylaminobenzaldehyde.	6 U/L	6-722 U/L	Enzymes,Liver Biomarkers
E-BC-K074-M	Myeloperoxidase (MPO) Activity Assay Kit	96T, 48T	Microplate reader	Serum, Plasma, Animal Tissue	Enzyme Activity	Myeloperoxidase reduces hydrogen peroxide to a complex. The complex react with o-dianisidine (as hydrogen donor) to produce a yellow product which has a maximum absorption peak at 460 nm. The activity of MPO can be calculated indirectly by measuring the OD value at 460nm.	19.42 U/L	19.42-893.31 U/L	Enzymes,Oxidative stress
E-BC-K074-S	Myeloperoxidase (MPO) Activity Assay Kit	100Assays	Spectrophotometer	Serum, Plasma, milk, Animal Tissue, cells	Enzyme Activity	Myeloperoxidase reduces hydrogen peroxide to a complex. The complex react with o-dianisidine (as hydrogen donor) to produce a yellow product which has a maximum absorption peak at 460 nm. The activity of MPO can be calculated indirectly by measuring the OD value at 460nm.	4.9 U/L	4.9-196.7 U/L	Enzymes,Oxidative stress
E-BC-F013	Myeloperoxidase (MPO) Peroxidation Activity Fluorometric Assay Kit	96T	Fluorescence Microplate Reader	Serum, Plasma, Animal Tissue	Enzyme Activity	Under the catalysis of peroxidase, hydrogen peroxide can oxidize the non-fluorescent probe into the fluorescent substance, and its fluorescence intensity is proportional to the total peroxidase activity in the sample. This kit specifically inhibits the peroxidase activity of MPO in the sample through an MPO enzyme inhibitor, thus distinguishing the peroxidase activity of MPO in the sample from that of other peroxidases.	0.001 U/L	0.001 - 1.26 U/L	Enzymes,Oxidative stress
E-BC-K539-M	Na+k+-ATPase Activity Assay Kit	96T	Microplate reader	Serum, Plasma, Animal Tissue	Enzyme Activity	Na+K+-ATPase decomposes ATP to produce ADP and Phosphorus, and calculates the activity of Na+K+-ATPase by measuring the content of phosphorus.	0.11 μmol Pi/mL/hour	0.42-4.99 μmol Pi/mL	Enzymes,Oxidative stress
E-BC-K199-S	Na+K+-ATPase Activity Assay Kit (Tissue And Cells)	100Assays, 50Assays	Spectrophotometer			#N/A			Oxidative stress
E-BC-K803-M	NADP+/NADPH Colorimetric Assay Kit	96T	Microplate reader	Animal Tissue, cells	Quantitative	Detect total content of NADP+ and NADPH: Glucose 6-phosphate (G6P) is oxidized to 6-phosphate	0.02 μmol/L	0.02-5.0 μmol/L	Oxidative stress

						gluconolactone (6-PG) by glucose-6-phosphate dehydrogenase (G6PDH), and NADP+ is reduced to NADPH during this reaction. NADPH, under the action of 1-mPMS, transfer electrons to WST-8 to produce the yellow product, which has a characteristic absorption peak at 450 nm. Therefore, the total content of NADP+ and NADPH can be quantified by measure the OD value at 450 nm.			
E-BC-K158-S	Nitrate Reductase (NR) Activity Assay Kit	100Assays, 50Assays	Spectrophotometer			#N/A			Oxidative stress
E-BC-K035-M	Nitric Oxide (NO) Colorimetric Assay Kit	96T, 48T	Microplate reader	Serum, Plasma, tissue, saliva	Quantitative	NO is easily oxidized to form NO2- in vivo or in aqueous solution, and a reddish azo compound is formed with the color developing agent, and the concentration of the azo compound is linearly related to the concentration of NO. The concentration of NO can be calculated indirectly by measuring the OD value at 550 nm.	0.16 μmol/L	0.16-100 μmol/L	Oxidative stress
E-BC-K035-S	Nitric Oxide (NO) Colorimetric Assay Kit	100Assays, 50Assays	Spectrophotometer	Serum, Plasma, tissue	Quantitative	NO is easily oxidized to form NO2- in vivo or in aqueous solution, and a reddish azo compound is formed with the color developing agent, and the concentration of the azo compound is linearly related to the concentration of NO. The concentration of NO can be calculated indirectly by measuring the OD value at 550 nm.	0.97 μmol/L	0.97-700 μmol/L	Oxidative stress
E-BC-K070-S	Nitrite Colorimetric Assay Kit	100Assays, 50Assays	Spectrophotometer	Serum, Plasma, saliva, tissue, cells, cell culture supernatant	Quantitative	Nitrite can react with chromogenic agent producing light red azo-compound. The content of nitrite can be calculated indirectly by measuring the OD value at 550 nm.	1.36 μmol/L	1.36-500 μmol/L	Oxidative stress
E-BC-K013-M	Non-esterified Free Fatty Acids (NEFA) Colorimetric Assay Kit	96T, 48T	Microplate reader	Animal Tissue, cells	Quantitative	Under the condition of weak acidity, non-esterified free fatty acids (NEFA) react with nantokite to form copper soap, which has a specific absorption peak at 715nm. The content of NEFA can be calculated indirectly by measuring the OD value at 715 nm.	0.15 mmol/L	0.15-1.5 mmol/L	Lipids metabolism
E-BC-K013-S	Non-esterified Free Fatty Acids (NEFA) Colorimetric Assay Kit	100Assays	Serum,animal tissue,cells	Lipids metabolism	Quantitative	Under the condition of weak acidity, non-esterified free fatty acids (NEFA) react with nantokite to form copper soap, which has a specific absorption peak at 715nm. The content of NEFA can be calculated by measuring the OD value at 715 nm.	0.05-2.0 mmol/L		
E-BC-K014	Non-esterified Free Fatty Acids (NEFA) Colorimetric Assay Kit	96T	Microplate reader, Biochemistry	Serum, Plasma, tissue homogenate,	Quantitative	NEFA and can react with coenzyme A and form acetyl-CoA under the catalysis of acetyl-CoA-synthetase (ACS). Acetyl-CoA can produce H2O2 when catalyzed by acetyl-CoA-		0.01-3.0 mmol/L	Lipids metabolism

			analyzer	cells, cell supernatant		oxidase (ACOD). Then H2O2 react with TOOS and 4-amino-antipyrine (4-APP) to generate a colored substrate under the catalysis of peroxidase (POD). The colored substrate has a maximum absorption peak at 546 nm. Measure the OD value at 546 nm and calculate the NEFA content indirectly.			
E-BC-K892-M	Oxalate (Oxalic Acid) Colorimetric Assay Kit	96T	Microplate reader	Animal Urine, serum, Plasma, plant tissue	Quantitative	Oxalate oxidase catalyzes the oxidation of oxalate to produce hydrogen peroxide and carbon dioxide. Under the action of POD, hydrogen peroxide reacts with chromogenic substances to produce colored products. There is a specific absorption peak at 550 nm, and the color depth is proportional to the content of oxalate.	0.02 mmol/L	0.02-1 mmol/L	Kidney Biomarkers
E-BC-K227-M	Peroxidase (POD) Activity Assay Kit (Plant samples)	96T, 48T	Microplate reader	Plant tissue	Enzyme Activity	Plant peroxidase, a member of the superfamily of peroxidase, catalyzes the redox reaction between H2O2 and various reductants. The plant peroxidase has the same general structure and consists of iron porphyrin IX and ten α-helixes. Based on the difference of primary structure, the superfamily of plant peroxidase can be divided into three types: class I (intracellular type), class II (extracellular type of fungi) and class III (secreted type of plant).	0.01 U/mL	0.01–100 U/mL	Enzymes,Oxidative stress
E-BC-K227-S	Peroxidase (POD) Activity Assay Kit (Plant Samples)	100Assays, 50Assays	Spectrophotometer	Plant tissue	Enzyme Activity	The peroxidase can catalyze the decomposition of H2O2 and produce water and oxygen. And oxygen oxidized pyrogallic acid to form yellow product. The activity of peroxidase can be calculated by measuring the absorbance at 420 nm.	0.5 U/mL	0.5-40 U/mL	Enzymes,Oxidative stress
E-BC-K226-S	Peroxidase (POD) Activity Assay Kit (Serum Samples)	50Assays	Spectrophotometer	Serum	Enzyme Activity	This kit is based on the reaction of hydrogen peroxide catalyzed by peroxidase, it detects the enzymatic activity by measuring the diversification of the absorbency value at 420 nm.	0.5 U/mL	0.5-300U/mL	Enzymes,Oxidative stress
E-BC-K522-S	Phenylalnine Ammonia Lyase (PAL) Activity Assay Kit	100 Assays, 50Assays	Spectrophotometer	Serum, Plasma, Animal Tissue, cells	Enzyme Activity	Phenylalanine ammonia lyase (PAL) can catalyze L-phenylalanine to produce trans-cinnamic acid and ammonia, and trans-cinnamic acid has the maximum absorption peak at 290 nm. PAL activity can be calculated by measuring the increase of OD value at 290 nm.	0.78 U/g tissue	0.78-156 U/g tissue	Enzymes,Plant stress resistance
E-BC-K245-M	Phosphorus (Pi) Colorimetric Assay Kit (Phospho Molybdate Method)	96T, 48T	Microplate reader	Serum, Plasma, tissue	Quantitative	Inorganic phosphorus react with molybdic acid to produce phosphomolybdic acid. Phosphomolybdic acid can be reduced to molybdenum blue under the action of reducing agent. And the molybdenum blue have a maximum absorption peak at 660 nm. The phosphorus	0.004 mmol/L	0.004-2.0 mmol/L	Inorganic ions

						content can be calculated indirectly be measuring the OD value at 660 nm.			
E-BC-K245-S	Phosphorus (Pi) Colorimetric Assay Kit (Phospho Molybdate Method)	100Assays, 50Assays	Spectrophotometer	Serum, Plasma, tissue	Quantitative	Inorganic phosphorus react with molybdic acid to produce phosphomolybdic acid. Phosphomolybdic acid can be reduced to molybdenum blue under the action of reducing agent. And the molybdenum blue have a maximum absorption peak at 660 nm. The phosphorus content can be calculated indirectly be measuring the OD value at 660 nm.	0.005 mmol/L	0.005-2.0 mmol/L	Inorganic ions
E-BC-K284-M	Plant Flavonoids Colorimetric Assay Kit	96T, 48T	Microplate reader	Plant tissue	Quantitative	In alkaline nitrite solution, flavonoids form red complex with aluminum ion. The flavonoid content of the sample can be calculated by measuring the absorbance of the sample extract at 510 nm.	0.66 μg/mL	0.66-150 μg/mL	Plant stress resistance
E-BC-K284-S	Plant Flavonoids Colorimetric Assay Kit	100Assays, 50Assays	Spectrophotometer	Plant tissue	Quantitative	In alkaline nitrite solution, flavonoids form red complex with aluminum ion. The flavonoid content of the sample can be calculated by measuring the absorptivity of the sample extract at 510 nm.	0.315 μg/mL	0.315-150 μg/mL	Plant stress resistance
E-BC-K259-M	Polyphenol Oxidase (PPO) Activity Assay Kit	96T, 48T	Microplate reader	Plant tissue	Enzyme Activity	Polyphenol oxidase (PPO) can catalyze phenolic compounds into quinone substances. The latter has specific absorption at 410 nm. The activity of PPO can be calculated indirectly bymeasuring the OD value at 410 nm.			Enzymes,Plant stress resistance
E-BC-K259-S	Polyphenol Oxidase (PPO) Activity Assay Kit	100 Assays, 50Assays	Spectrophotometer	Plant tissue	Enzyme Activity	Polyphenol oxidase (PPO) can catalyze phenolic compounds into quinone substances. The latter has specific absorption at 410 nm. The activity of PPO can be calculated indirectly by measuring the OD value at 410 nm.			Enzymes,Plant stress resistance
E-BC-K279-M	Potassium (K) turbidimetric Assay Kit	96T, 48T	Microplate reader	Serum, Plasma, milk, Animal Tissue, cells, cell culture supernatant	Quantitative	Under the alkaline condition, the sodium tetraphenylborate reacts with the potassium ions in the sample to form the potassium tetraphenylborate which is white and small particles with small solubility. Potassium tetraphenylborate particles are in a stable suspension state in the solution. The turbidity is proportional to the potassium ion concentration in the sample and potassium content can be calculated indirectly by measuring the OD value at 450 nm.	0.002 mmol/L	0.01-0.80 mmol/L	Inorganic ions
E-BC-K177-S	Proline (Pro) Colorimetric Assay Kit	100Assays, 50Assays	Spectrophotometer	Plant tissue, honey	Quantitative	Proline can react with acidic-ninhydrin to form stable red compound. The maximum absorption peak of the compound is at 520 nm. And the concentration of Pro can be calculated by measuring the OD value at 520 nm.	0.17 μg/mL	0.17-35 μg/mL	Plant stress resistance,Amino acids & proteins
E-BC-K117-M	Protein Carbonyl	96T	Microplate	Serum,	Quantitative	The content of protein carbonyl increased after oxidation,			Oxidative

	Colorimetric Assay Kit (Tissue And Serum Samples)		reader	Plasma, hydrothorax, cell culture supernatant, tissue		and the carbonyl group reacted with 2, 4-dinitrophenylhydrazine to form a reddish brown precipitate. The absorbance can be measured at 370 nm after the precipitation is dissolved. The carbonyl content can be calculated indirectly.			stress,Amino acids & proteins
E-BC-K117-S	Protein Carbonyl Colorimetric Assay Kit (Tissue And Serum Samples)	100Assays, 50Assays	Spectrophotometer	Serum, Plasma, hydrothorax, cell culture supernatant, tissue	Quantitative	The content of protein carbonyl increased after oxidation, and the carbonyl group reacted with 2, 4-dinitrophenylhydrazine to form a reddish brown precipitate. The absorbance can be measured at 370 nm after the precipitation is dissolved. The carbonyl content can be calculated indirectly.	0.02 nmol/mgprot	0.02-10 nmol/mgprot	Oxidative stress,Amino acids & proteins
E-BC-K130-M	Pyruvic Acid Colorimetric Assay Kit	96T, 48T	Microplate reader	Serum, Plasma, tissue	Quantitative	Pyruvic acid can react with chromogenic agent and the reaction product is reddish brown in alkaline solution. The depth of color is directly proportional to the pyruvate content. The pyruvate content can be calculated by measuring the OD value at 505 nm.	0.003 μmol/mL	0.003-2.0 μmol/mL	Glycolysis & Carbohydrates,Amino acids & proteins
E-BC-K130-S	Pyruvic Acid Colorimetric Assay Kit	100Assays, 50Assays	Spectrophotometer	Serum, Plasma, tissue, cells	Quantitative	Pyruvic acid can react with chromogenic agent and the reaction product is reddish brown in alkaline solution. The depth of color is directly proportional to the pyruvate content. The pyruvate content can be calculated by measuring the OD value at 505 nm.	0.006 μmol/mL	0.006-2.0 μmol/mL	Glycolysis & Carbohydrates,Amino acids & proteins
E-BC-K138-F	Reactive Oxygen Species (ROS) Fluorometric Assay Kit	96T	Fluorescence Microplate reader, Fluorescence Microscope, Flow Cytometry	Fresh tissue, cultured cells	Cell-based (quantitative)	DCFH-DA (2,7-dichlorofuorescin diacetate) is a fluorescent probe without fluorescence that can freely cross the membrane. After entering the cell, it can be hydrolyzed by intracellular esterase to form DCFH (dichlorofluorescin). In the presence of reactive oxygen species (ROS), DCFH is oxidized to DCF (dichlorofluorescein) which is a strong green fluorescent substance that cannot penetrate the cell membrane. DCF has a maximum wave peak near the excitation wavelength of 502 nm and the emission wavelength of 525 nm, and the intensity is proportional to the level of intracellular reactive oxygen species.			Oxidative stress
E-BC-K030-M	Reduced Glutathione (GSH) Colorimetric Assay Kit	96T, 48T	Microplate reader	Serum, Plasma, cell culture supernatant, tissue, cells	Quantitative	Reduced GSH can react with Dinitrobenzoic acid (DNTB) to form a yellow complex which can be detected by colorimetric assay at 405 nm and calculate the reduced GSH content indirectly.	2 μmol/L	2-100 μmol/L	Oxidative stress
E-BC-K030-S	Reduced Glutathione (GSH) Colorimetric Assay Kit	100Assays, 50Assays	Spectrophotometer	Serum, Plasma, tissue, cells	Quantitative	Reduced glutathione (GSH) can react with dithionitrobenzoic acid (DTNB) to produce thio-nitrobenzoic acid and glutathione disulfide.	0.26 mg GSH/L	0.26-122.8 mgGSH/L	Oxidative stress

						Nitromercaptobenzoic acid is a yellow compound which has the maximum absorption peak at 420 nm. The GSH content can be calculated by measuring the OD value at 420 nm.			
E-BC-K068-M	Sialic Acid (SA) Colorimetric Assay Kit	96T, 48T	Microplate reader	Serum, Plasma, saliva, Urine, hydrothorax, tissue	Quantitative	Sialic acid forms a purplish red complex with methyl resorcinol in the presence of oxidant. And the absorbance conforms to Lambert-Beer's law. The content of sialic acid can be calculated by measuring the OD value at 560 nm.	0.03 mmol/L	0.03-7 mmol/L	Others
E-BC-K068-S	Sialic Acid (SA) Colorimetric Assay Kit	100Assays, 50Assays	Spectrophotometer	Serum, Plasma, saliva, Urine, hydrothorax, tissue, cells	Quantitative	Sialic acid forms a purplish red complex with methyl resorcinol in the presence of oxidant. And the absorbance conforms to Lambert-Beer's law. The content of sialic acid can be calculated by measuring the OD value at 560 nm.	0.022 mmol/L	0.022-7 mmol/L	Others
E-BC-K207-S	Sodium (Na) Colorimetric Assay Kit	200Assays	Spectrophotometer, Microplate reader, Biochemistry analyzer	Serum	Quantitative	Production of o-nitrophenol and galactose by o-nitrophenol-β-D-galactoside (ONPG) catalyzed by sodium dependent β-D-galactosidase. The amount of o-nitrophenol is directly proportional to the concentration of sodium ion in the sample. The o-nitrophenol is yellow in alkaline environment. The increase of absorbance is determined at 405 nm, and the content of sodium ion is calculated indirectly.		80-180 mmol/L	Inorganic ions
E-BC-K751-M	Sucrase Activity Assay Kit	96T	Microplate reader	Animal Tissue	Enzyme Activity	Sucrase catalyzes its substrate (sucrose) to produce glucose, which produces hydrogen peroxide under the action of glucose oxidase. Hydrogen peroxide reacts with chromogenic agent to produce red substance, which has a strong absorption peak at 505 nm. In a certain concentration range, It's absorbance is proportional to glucose concentration. Therefore, the activity of sucrase can be calculated by measuring the OD value at 505 nm.	20 U/mL	20-2000 U/mL	Enzymes,Glycolysis & Carbohydrates
E-BC-K161-S	Sucrose Colorimetric Assay Kit	100Assays, 50Assays	Spectrophotometer	Plant tissue	Quantitative	Sucrose in plant tissue is hydrolyzed to glucose and fructose in boiling water bath under acidic conditions. 5-hydroxymethyl furfural was synthesized from fructose under acid condition and measure the ultraviolet absorption of 5-hydroxymethyl furfural. Glucose must be dissimilated into ketose structure and reduced to obtain 5-hydroxymethylfurfural, but the rate of isomerization of glucose to ketose is very slow. Therefore, the ultraviolet absorption of glucose is much smaller than fructose.	0.32 μmol/mL	0.32-70 μmol/mL	Glycolysis & Carbohydrates
E-BC-F042	Sucrose Fluorometric	96T	Fluorescence	Plant tissue	Quantitative	Sucrose can be hydrolyzed by sucrase to produce glucose	0.15	0.15-15	Others

	Assay Kit		microplate reader			under acidic conditions, which is catalyzed by glucose oxidase to produce hydrogen peroxide. In the presence of HRP (horse radish peroxidase), hydrogen peroxide reacts with the fluorescent probe to form red fluorescent substance. The sucrose content can be calculated by measuring the fluorescence intensity at the excitation wavelength of 535 nm and the emission wavelength of 590 nm.	µmol/L	µmol/L	
E-BC-K298-M	Thiobarbituric Acid Reactants (TBARS) Colorimetric Assay Kit	96T, 48T	Microplate reader	Serum, Plasma, Animal Tissue	Quantitative	TBARS and TBA can react under high temperature and acid conditions and then form a pink compound, the concentration of which is linearly related to the concentration of TBARS in the sample. The TBARS concentration can be calculated by measuring the OD values at 530-540 nm.	0.85 µmol/L	2.6-100 µmol/L	Oxidative stress
E-BC-K298-F	Thiobarbituric Acid Reactants (TBARS) Fluorometric Assay Kit	96T, 48T	Fluorescence Microplate reader	Serum, Plasma, Animal Tissue, cells	Quantitative	TBARS and TBA can react under high temperature and acid conditions and then form a pink compound, the concentration of which is linearly related to the concentration of TBARS in the sample. The TBARS concentration can be calculated by measuring the fluorescence values at the excitation wavelength of 530 nm and the emission wavelength of 550 nm.	0.09 µmol/L	0.09-10 µmol/L	Oxidative stress
E-BC-K055-M	Total Amino Acids (T-AA) Colorimetric Assay Kit	96T, 48T	Microplate reader	Serum, Plasma, Urine, tissue	Quantitative	Copper ions can complex with various amino acids to produce blue-green complex compound, and the depth of color is proportional to the content of total amino acids at a specific wavelength. T-AA content can be calculated with the absorbance at 650 nm.	3.03 mmol/L	3.64-100 mmol/L	Amino acids & proteins
E-BC-K136-M	Total Antioxidant Capacity (T-AOC) Colorimetric Assay Kit	96T, 48T	Microplate reader	Serum, Plasma, whole blood, tissue, cells, cell culture supernatant	Enzyme Activity	A variety of antioxidant macromolecules, antioxidant molecules and enzymes in a system can eliminate all kinds of reactive oxygen species and prevent oxidative stress induced by reactive oxygen species. The total level reflect the total antioxidant capacity in the system. Many antioxidants in the body can reduce Fe3+ to Fe2+ and Fe2+ can form stable complexes with phenanthroline substance. The antioxidant capacity (T-AOC) can be calculated by measuring the absorbance at 520 nm.	0.62 U/mL	0.62-190.43 U/mL	Oxidative stress
E-BC-K136-S	Total Antioxidant Capacity (T-AOC) Colorimetric Assay Kit	100Assays, 50Assays	Spectrophotometer	Serum, Plasma, saliva, Urine, tissue, cells	Quantitative	A variety of antioxidant macromolecules, antioxidant molecules and enzymes in a system can eliminate all kinds of reactive oxygen species and prevent oxidative stress induced by reactive oxygen species. The total level reflect the total antioxidant capacity in the system. Many	0.62 U/mL	0.62-145.2 U/mL	Oxidative stress

						antioxidants in the body can reduce Fe3+ to Fe2+ and Fe2+ can form stable complexes with phenanthroline substance. The antioxidant capacity (T-AOC) can be calculated by measuring the absorbance at 520 nm.			
E-BC-K219-M	Total Antioxidant Capacity (T-AOC) Colorimetric Assay Kit (ABTS, Enzyme Method)	96T, 48T	Microplate reader	Serum, Plasma, Urine, saliva, tissue, cells	Quantitative	The principle of the ABTS method for determining the T-AOC is as follows. ABTS is oxidized to green ABTS+ by appropriate oxidant, which can be inhibited if there exist antioxidants. The T-AOC of the sample can be determined and calculated by measuring the absorbance of ABTS+ at 414 nm or 734 nm. Trolox is an analog of VE and has a similar antioxidant capacity to that of VE. Trolox is used as a reference for other antioxidant antioxidants. For example, the T-AOC of Trolox is 1, then the antioxidant capacity of the other substance with the same concentration is showed by the ratio of its antioxidant capacity to Trolox antioxidant capacity.	0.047 mmol/L	0.047-1.50 mmol/L	Oxidative stress
E-BC-K271-M	Total Antioxidant Capacity (T-AOC) Colorimetric Assay Kit (ABTS, Chemical Method)	96T, 48T	Microplate reader	Serum, Plasma, Urine, saliva, tissue, cells	Quantitative	The principle of the ABTS method for determining the T-AOC is as follows. ABTS is oxidized to green ABTS+ by appropriate oxidant, which can be inhibited if there exist antioxidants. The T-AOC of the sample can be determined and calculated by measuring the absorbance of ABTS+ at 734 nm. Trolox is an analog of VE and has a similar antioxidant capacity to that of VE. Trolox is used as a reference for other antioxidant antioxidants. For example, the T-AOC of Trolox is 1, then the antioxidant capacity of the other substance with the same concentration is showed by the ratio of its antioxidant capacity to Trolox antioxidant capacity.	0.05 mmol/L	0.05-1.00 mmol/L	Oxidative stress
E-BC-K225-M	Total Antioxidant Capacity (T-AOC) Colorimetric Assay Kit (FRAP Method)	96T, 48T	Microplate reader	Serum, Plasma, saliva, Urine, tissue, cells, cell culture supernatant	Quantitative	Fe3+-TPTZ can be reduced by antioxidants and produce blue Fe2+-TPTZ under acid condition. The antioxidant capacity of sample can be calculated by detection the absorbance value at 593 nm.	0.049 mmol/L	0.049-2.5 mmol/L	Oxidative stress
E-BC-K801-M	Total Antioxidant Status (TAS) Colorimetric Assay Kit	96T, 48T	Microplate reader	Serum, Plasma, Urine, cellular supernatant, animal, plant tissue	Quantitative	ABTS is oxidized to green ABTS•+ by appropriate oxidant, which can be reduced to colorless ABTS in the presence of antioxidants. The TAS of the sample can be determined and calculated by measuring the absorbance of ABTS•+ at 660 nm. Trolox is an analog of VE and has a similar antioxidant state to that of VE. Trolox is used as a	0.23 mmol Trolox Equiv./L	0.23-2 mmol Trolox Equiv./L	Oxidative stress

						reference substance for total antioxidant status.			
E-BC-K181	Total Bile Acid (TBA) Colorimetric Assay Kit	100Assays	Spectrophotometer, Biochemistry analyzer	Serum	Quantitative	Measure the OD value at 405 nm and the changes of absorbance is proportional to the concentration of bile acid.		0-180 μmol/L	Lipids metabolism ,Liver Biomarkers
E-BC-K181-M	Total Bile Acid (TBA) Colorimetric Assay Kit	96T, 48T	Microplate reader	Serum	Quantitative	With S-NAD+ as hydrogen receptor, 3α-hydroxy steroid dehydrogenase catalyzed the dehydrogenation of bile acids to produce 3-ketone steroids, transforming S-NAD+ into S-NADH. Meanwhile, NADH was used as hydrogen donor. 3α-hydroxy steroid dehydrogenase catalyzed the production of bile acids from 3-ketone steroids. Through the enzyme cycle reaction, S-NADH is continuously generated, which has the maximum absorption peak at 405 nm. Measure the OD value at 405 nm and the changes of absorbance is proportional to the concentration of bile acid.	2.05 μmol/L	2.05-120 μmol/L	Lipids metabolism ,Liver Biomarkers
E-BC-K760-M	Total Bilirubin (TBIL) Colorimetric Assay Kit	96T, 48T	Microplate reader	Animal serum	Quantitative	Bilirubin is one of the important components of bile. It is the degradation product of hemoglobin in various heme proteins under the action of a series of enzymes. It is important to the digestion and absorption of lipids and the formation of yellow distemper. Bilirubin comes in two forms: water-soluble and water-insoluble. Bilirubin has powerful antioxidant, anti-inflammatory and autoimmune properties. The concentration of bilirubin in human body is related to sex, drug intake, age and so on. Low serum bilirubin is directly related to diabetes, metabolic syndrome, cardiovascular disease and other pathological states. However, high bilirubin is indicative of hemolysis, jaundice, Gilbert syndrome, hepatitis, drug toxicity, and possible bile duct obstruction.	0.7 μmol/L	0.7-50 μmol/L	Liver Biomarkers
E-BC-K171-M	Total Carbonyl Colorimetric Assay Kit	96T, 48T	Microplate reader	Serum, Plasma, tissue	Quantitative	Carbonyl can react with 2,4-dinitrophenylhydrazine and produce a kind of reddish brown hydrazone compounds, which has a specific absorbance peak at 370 nm. The content of carbonyl can be calculated according to the absorbance value.	1.29 μg/mL	1.29-45 μg/mL	Amino acids & proteins
E-BC-K171-S	Total Carbonyl Colorimetric Assay Kit	100Assays, 50Assays	Spectrophotometer	Serum, Plasma, , tissue	Quantitative	Carbonyl can react with 2,4-dinitrophenylhydrazine and produce a kind of reddish brown hydrazone compounds, which has a specific absorbance peak at 370 nm. The content of carbonyl can be calculated according to the absorbance value.	0.94 μg/mL	0.94-45 μg/mL	Amino acids & proteins

E-BC-K109-M	Total Cholesterol (TC) Colorimetric Assay Kit (Single Reagent, COD-PAP Method)	96T, 48T	Microplate reader	Serum, Plasma, tissue, cells, cell culture supernatant	Quantitative	Total cholesterol includes free cholesterol and cholesterol esters. Cholesterol ester can be hydrolyzed by cholesterol esterase to produce cholesterol and free fatty acid. Cholesterol is oxidized by cholesterol oxidase to produce △4-cholestenone and hydrogen peroxide. In the presence of 4-aminoamylpyridine and phenol, hydrogen peroxide catalyze peroxidase to form red quinone compounds of benzoquinone imine phenizone.The color depth of the generated quinone is directly proportional to the cholesterol content. The absorbance values of the standard tube and the sample tube are measured respectively, and the cholesterol content in the sample can be calculated.	0.29 mmol/L	0.29-25.85 mmol/L	Lipids metabolism
E-BC-K109-S	Total Cholesterol (TC) Colorimetric Assay Kit (Single Reagent, COD-PAP Method)	100Assays, 50Assays	Spectrophotometer	Serum, Plasma, hydrothorax, Animal Tissue, cells	Quantitative	Total cholesterol includes free cholesterol and cholesterol esters. Cholesterol ester can be hydrolyzed by cholesterol esterase to produce cholesterol and free fatty acid. Cholesterol is oxidized by cholesterol oxidase to produce △4-cholestenone and hydrogen peroxide. In the presence of 4-aminoamylpyridine and phenol, hydrogen peroxide catalyze peroxidase to form red quinone compounds of benzoquinone imine phenizone.The color depth of the generated quinone is directly proportional to the cholesterol content. The absorbance values of the standard tube and the sample tube are measured respectively, and the cholesterol content in the sample can be calculated.	0.09 mmol/L	0.09-25.85 mmol/L	Lipids metabolism
E-BC-F032	Total Cholesterol and Cholesteryl Ester Fluorometric Assay Kit	96T, 48T	Fluorescence Microplate Reader	Serum, Plasma, Animal Tissue, cells	Quantitative	Total Cholesterol (TC) includes free cholesterol (FC) and cholesteryl esters (CE). Cholesterol ester can be hydrolyzed by cholesterol esterase to produce cholesterol and free fatty acid. Cholesterol is oxidized by cholesterol oxidase to produce △4-cholestenone and hydrogen peroxide. In the presence of the enzyme and probe, hydrogen peroxide can be catalyzed to produce the fluorescence substrate. The fluorescence intensity at the excitation wavelength of 535 nm and emission wavelength of 590 nm is proportional to the cholesterol concentration.	0.12 μmol/L	0.12-30 μmol/L	Lipids metabolism
E-BC-K097-M	Total Glutathione (T-GSH)/Oxidized Glutathione (GSSG)	96T	Microplate reader	Serum, Plasma, Animal Tissue, red	Quantitative	GSSG is reduced to GSH by glutathione reductase, and GSH can react with DTNB to produce GSSG and yellow TNB. The amount of total glutathione (GSSG+GSH)	0.36 μmol/L T-GSH	0.36-30 μmol/L T-GSH	Oxidative stress

	Colorimetric Assay Kit			blood cells, cultured cells		determines the amount of yellow TNB. Thus the total glutathione can be calculated by measuring the OD value at 412 nm. The content of GSSG can be determined by first removing GSH from the sample with appropriate reagent and then using the above reaction principle.			
E-BC-K097-S	Total Glutathione (T-GSH)/Oxidized Glutathione (GSSG) Colorimetric Assay Kit	100Assays, 50Assays	Spectrophotometer	Serum, Plasma, Animal Tissue, red blood cells, cultured cells	Quantitative	GSSG is reduced to GSH by glutathione reductase, and GSH can react with DTNB to produce GSSG and yellow TNB. The amount of total glutathione (GSSG+GSH) determines the amount of yellow TNB. Thus the total glutathione can be calculated by measuring the OD value at 412 nm. The content of GSSG can be determined by first removing GSH from the sample with appropriate reagent and then using the above reaction principle.	0.12 μmol/L T-GSH	0.12-30 μmol/L T-GSH	Oxidative stress
E-BC-K071-M	Total Iron Binding Capacity (TIBC) Colorimetric Assay Kit	96T, 48T	Microplate reader	Serum	Quantitative	The excess iron is added to the serum to bind all the ferritin in the serum, and the excess iron is adsorbed by adding the iron adsorbent. The iron bind with the ferritin is separated from the protein by the action of acid solution and reductant. Fe3+ in serum is reduced to Fe2+, Fe2+ binds with bipyridine to form pink complex. In a certain range, the amount of TIBC is positively correlated with the depth of color. The iron content measured is, minus serum iron value, which is called unsaturated iron binding force. Total iron binding capacity minus serum iron value is unsaturated iron binding capacity (UIBC).	0.14 mg/L	0.31-50 mg/L	Inorganic ions
E-BC-K071-S	Total Iron Binding Capacity (TIBC) Colorimetric Assay Kit	50Assays,	Spectrophotometer	Serum	Quantitative	The excess iron is added to the serum to bind all the ferritin in the serum, and the excess iron is adsorbed by adding the iron adsorbent. The iron bind with the ferritin is separated from the protein by the action of acid solution and reductant. Fe3+ in serum is reduced to Fe2+, Fe2+ binds with bipyridine to form pink complex. In a certain range, the amount of TIBC is positively correlated with the depth of color. The iron content measured is, minus serum iron value, which is called unsaturated iron binding force. Total iron binding capacity minus serum iron value is unsaturated iron binding capacity (UIBC).	0.03 mg/L	0.03-50 mg/L	Inorganic ions
E-BC-K772-M	Total Iron Colorimetric Assay Kit	96T, 48T	Microplate reader	Serum, tissue, cells	Quantitative	Under the action of reductant, iron ions in samples can be reduced into ferrous ions (Fe2+). The latter then bind to probe and form complexes, which has a maximum absorption peak at 593 nm. The concentration of iron can be calculated by measuring the OD value at 593 nm	0.4 μmol/L	0.4-50 μmol/L	Inorganic ions

						indirectly.			
E-BC-K802-M	Total Oxidant Status (TOS) Colorimetric Assay Kit	96T, 48T	Microplate reader	Tissue, serum and other liquid samples	Quantitative	Under acid conditions, the oxidizing material in the sample can oxidize Fe2+ to Fe3+, which binds highly with xylenol orange to produce a blue-purple complex. When the pH of solution is in the range of 2-3, its maximum absorption wavelength is around 590 nm, and the color depth is proportional to the content of oxidation substances in a certain concentration and a certain time, so as to indirectly calculate the total oxidation state of the sample.	2.5 μmol H2O2 Equiv./L	2.5-100 μmol H2O2 Equiv./L	Oxidative stress
E-BC-K354-M	Total Phenols Colorimetric Assay Kit (Plant samples)	96T	Microplate reader	Plant tissue	Quantitative	Plant total phenol is a common secondary natural metabolite in plants. There are several kinds of phenolic compounds, such as hydroxybenzoic acid, hydroxy cinnamic acid, flavonoids, chalcone, flavonoids, lignin, coumarin and astragalus. Phenolic compounds are antioxidants that delay or prevent oxidation and oxygen radical reactions.	1.05 μg/mL	1.05–148 μg/mL	Plant stress resistance
E-BC-K354-S	Total Phenols Colorimetric Assay Kit (Plant Samples)	100Assays, 200Assays	Spectrophotometer	Plant tissue	Quantitative	Under alkaline conditions, tungsten-molybdenum acid can be reduced by phenols and produce blue compounds, which has a characteristic absorption peak at 760 nm. The content of total phenols in sample can be calculated indirectly by measuring the absorbance at 760 nm.	0.73 μg/mL	0.73-150 μg/mL	Plant stress resistance
E-BC-K265-M	Total Sulfhydryl Group/Total Thiol (-SH) Colorimetric Assay Kit	96T	Microplate reader	Serum, Plasma, Animal Tissue	Quantitative	Sulfhydryl compounds react with 5,5' -dithiobis (2-nitrobenzoic acid) under neutral or alkaline conditions to produce a yellow product which have a maximum absorption peak at 412 nm. Measure the OD value and calculate the total mercapto content indirectly.	9.91 μmol/L	9.91-1000 μmol/L	Oxidative stress
E-BC-K019-M	Total Superoxide Dismutase (T-SOD) Activity Assay Kit (Hydroxylamine Method)	96T, 48T	Microplate reader	Serum, Plasma, Urine, cells, cell culture supernatant, tissue	Enzyme Activity	The superoxide anion free radical (O2-) can be produced by xanthine and xanthine oxidase reaction system, O2- oxidize hydroxylamine to form nitrite, it turn to purple under the reaction of developer. When the measured samples containing SOD, the SOD can specifically inhibit superoxide anion free radical (O2-). The inhibitory effect of SOD can reduce the formation of nitrite, the absorbance value of sample tube is lower than control tube. Calculate the SOD of sample according to the computational formula.	2.4 U/mL	2.4-61 U/mL	Enzymes,Oxidative stress
E-BC-K019-S	Total Superoxide Dismutase (T-SOD) Activity Assay Kit	100Assays, 50Assays	Spectrophotometer	Serum, Plasma, Urine, cells, cell	Enzyme Activity	The superoxide anion free radical (O2-) can be produced by xanthine and xanthine oxidase reaction system, O2- oxidize hydroxylamine to form nitrite, it turn to purple	4.7 U/mL	4.7-166 U/mL	Enzymes,Oxidative stress

	(Hydroxylamine Method)			culture supernatant, tissue		under the reaction of developer. When the measured samples containing SOD, the SOD can specifically inhibit superoxide anion free radical (O2-). The inhibitory effect of SOD can reduce the formation of nitrite, the absorbance value of sample tube is lower than control tube. Calculate the SOD of sample according to the computational formula.			
E-BC-K020-M	Total Superoxide Dismutase (T-SOD) Activity Assay Kit (WST-1 Method)	96T, 500Assays	Microplate reader	Serum, Plasma, hydrothorax, ascites, Urine, cells, tissue	Enzyme Activity	The activity of SOD was measured by WST-1 method in this kit and the principles of the WST-1 is as follows. Xanthine Oxidase (XO) can catalyze WST-1 react with O2.- to generate a water-soluble formazan dye. SOD can catalyze the disproportionation of superoxide anions, so the reaction can be inhibited by SOD, and the activity of SOD is negatively correlated with the amount of formazan dye. Therefore, the activity of SOD can be determined by the colorimetric analysis of WST-1 products.	0.2 U/mL	0.2 -14.4 U/mL	Enzymes,Oxidative stress
E-BC-K238	Triglyceride (TG) Colorimetric Assay Kit (Single Reagent, GPO-PAP Method)	96T	Microplate reader, Biochemistry analyzer	Serum, Plasma, cells, culture supernatant	Quantitative	The color depth of the generated quinones is directly proportional to the triglyceride content. The absorbance values of the standard tube and the sample tube are measured respectively, and the triglyceride content in the sample can be calculated.		0-9.04 mmol/L	Lipids metabolism
E-BC-K261-M	Triglyceride (TG) Colorimetric Assay Kit (Single Reagent, GPO-PAP Method)	96T	Microplate reader	Serum, Plasma, cells and tissue	Quantitative	Triglycerides (TG) can be hydrolyzed by lipoprotein lipase into glycerol and free fatty acids. Glycerol produces glycerol-3-phosphate and ADP under the catalysis of glycerol kinase (GK). Glycerol-3-phosphate produces hydrogen peroxide under the action of glycerol phosphate oxidase (GPO). In the presence of 4-aminoantipyrine and phenol, hydrogen peroxide is catalyzed by peroxidase (POD) to produce quinones which is proportional to the content of TG.	0.14 mmol/L	0.14-10 mmol/L	Lipids metabolism
E-BC-K261-S	Triglyceride (TG) Colorimetric Assay Kit (Single Reagent, GPO-PAP Method)	100 Assays	Serum,plasma,tissue,cells	Lipids metabolism	Quantitative	The color depth of the generated quinones is directly proportional to the triglyceride content. The absorbance values of the standard tube and the sample tube are measured respectively, and the triglyceride content in the sample can be calculated.	0.19-8.0 mmol/L		
E-BC-K851-M	Tyrosine Ammonia-lyase (TAL) Activity Assay Kit	96T, 48T	Microplate reader	Fruit juices, plant and Animal Tissue	Enzyme Activity	TAL can decompose tyrosine to produce 4-coumaric acid, which has a strong absorption peak at 333 nm. Therefore, the activity of TAL can be calculated by measuring the OD value at 333 nm.	0.12 U/mL		Enzymes
E-BC-K329-S	Urea (BUN) Colorimetric	100Assays, 50Assays	Spectrophotom	Serum,	Quantitative	In strong acidic and heating condition, urea can react with	0.12	0.12-15	Kidney

	Assay Kit (Diacetyl Oxime Method)		eter	Plasma, saliva, Urine		diacetyl to form red diazine compound. The depth of color is proportional to the content of urea. Because the instability of the diacetyl, the diacetyl oxime usually react with the strong acid firstly in the reaction system to generate diacetyl, then react with urea to generate the red diazine compound. The reaction equation is as follows:	mmol/L	mmol/L	Biomarkers
E-BC-K183-M	Urea (BUN) Colorimetric Assay Kit (Urease Method)	96T	Microplate reader	Serum, Plasma, Urine, saliva, milk	Quantitative	Urea can be decomposed into ammonia ion and carbon dioxide by urease. Ammonia ion can react with amphyl and form a green substance in alkaline medium, and the production of the green substance is proportional to the urea content which can be calculated with the colorimetric assay at 580 nm.	0.09 mmol/L	0.28-35 mmol/L	Kidney Biomarkers
E-BC-K183-S	Urea (BUN) Colorimetric Assay Kit (Urease Method)	100Assays, 50Assays	Spectrophotom eter	Serum, Plasma, Urine, saliva, milk	Quantitative	Urea can be decomposed into ammonia ion and carbon dioxide by urease. Ammonia ion can react with phenol chromogenic agent and form a blue substance in alkaline medium, and the production of the blue substance is proportional to the urea content which can be calculated with the colorimetric assay at 580 nm.	0.114 mmol/L	0.114-30 mmol/L	Kidney Biomarkers
E-BC-K016-M	Uric Acid (UA) Colorimetric Assay Kit	96T, 48T	Microplate reader	Serum, Plasma, Urine	Quantitative	Uric Acid in protein-free filtrate reduce phosphotungstic acid to form tungsten blue, allantoin and carbon dioxide, the depth of blue color is proportional to the concentration of uric acid. Uric acid content can be calculated by measuring the OD value at 690 nm.	1.30 mg/L	1.30-80 mg/L	Kidney Biomarkers
E-BC-K016-S	Uric Acid (UA) Colorimetric Assay Kit	100Assays, 50Assays	Spectrophotom eter	Serum, Plasma, Urine	Quantitative	Uric acid can be used as an antioxidant to remove peroxide, hydroxyl and oxygen free radicals, chelate and transfer metal ions, protect vascular endothelial cells from damage. Uric Acid in protein-free filtrate reduce phosphotungstic acid to form tungsten blue, allantoin and carbon dioxide, the depth of blue color is proportional to the concentration of uric acid.	0.58 mg/L	0.58-100 mg/L	Kidney Biomarkers
E-BC-F018	Uric Acid (UA) Fluorometric Assay Kit	96T, 48T	Fluorescence Microplate Reader	Serum, Plasma, Urine, Animal Tissue	Quantitative	Uricase catalyzes the decomposition of uric acid into allantoin, CO2 and H2O2. Under the action of peroxidase, H2O2 oxidizes the non-fluorescent probe into the fluorescent substance. By measuring the fluorescence value of the system, the corresponding uric acid content can be calculated.	0.03 μmol/L	0.03-15 μmol/L	Kidney Biomarkers
E-BC-K034-M	Vitamin C (VC) Colorimetric Assay Kit	96T, 48T	Microplate reader	Serum, Plasma, tissue	Quantitative	The most obvious chemical activity of VC is that reduce Fe3+ to Fe2+, then promote iron absorption in the intestine, promote the storage and utilization of iron. Fe3+	0.31 μg/mL	0.31-20 μg/mL	Oxidative stress,Plant stress

						react immediately with reducing ascorbic acid to form Fe2+. then Fe2+ react with phenanthroline and the color developing reaction occurs. The content of vitamin C in sample can be determined. Measure the OD value and calculate the VC content indirectly.			resistance
E-BC-K034-S	Vitamin C (VC) Colorimetric Assay Kit	100Assays, 50Assays	Spectrophotometer	Serum, Plasma, tissue	Quantitative	The most obvious chemical activity of VC is that reduce Fe3+ to Fe2+, then promote iron absorption in the intestine, promote the storage and utilization of iron. Fe3+ react immediately with reducing ascorbic acid to form Fe2+. then Fe2+ react with phenanthroline and the color developing reaction occurs. The content of vitamin C in sample can be determined. Measure the OD value and calculate the VC content indirectly.	0.35 μg/mL	0.35-20 μg/mL	Oxidative stress,Plant stress resistance
E-BC-K033-M	Vitamin E (VE) Colorimetric Assay Kit	96T, 48T	Microplate reader	Serum, Plasma, tissue	Quantitative	Fe3+ can be deoxidized to Fe2+ by VE with ferroin existing. Fe2+ can react with phenanthroline and form pink compound under certain condition. After colorimetric assay, VE content can be figured out according to the standard curve or calculated through formula.	0.95 μg/mL	0.95-40 μg/mL	Oxidative stress,Plant stress resistance
E-BC-K033-S	Vitamin E (VE) Colorimetric Assay Kit	100Assays, 50Assays	Spectrophotometer	Serum, Plasma, tissue	Quantitative	Fe3+ can be deoxidized to Fe2+ by VE with ferroin existing. Fe2+ can react with phenanthroline and form pink compound under certain condition. VE content can be calculated by measuring the OD value at 532 nm.	0.09 μg/mL	0.09-40 μg/mL	Oxidative stress,Plant stress resistance
E-BC-F019	Xanthine Oxidase (XOD) Activity Fluorometric Assay Kit	96T	Fluorescence Microplate Reader	Serum, Plasma, Animal Tissue	Enzyme Activity	Hypoxanthine are oxidized by xanthine oxidase (XOD) to produce xanthine and super oxygen anion, which will quickly converte to hydrogen peroxide in the system, and then, in the role of peroxidase, hydrogen peroxide can oxidize the non-fluorescent probe to fluorescent substance. By measuring the fluorescence value, the corresponding the activity of xanthine oxidase can be calculated.	0.01 U/L	0.01 -1.2 U/L	Enzymes,Oxidative stress
E-BC-K137-M	Zinc (Zn) Colorimetric Assay Kit	96T, 48T	Microplate reader	Serum, Plasma, Urine, milk	Quantitative	The zinc ion in the sample react with 5-Br-PADAP to produce the colored complex. The depth of color is directly proportional to the concentration of zinc ion. Zinc ion content can be calculated by measuring the OD values at 560 nm.	0.418 μmol/L	0.748 - 46.2 μmol/L	Inorganic ions
E-BC-K007-M	α-Amylase Activity Assay Kit	96T, 48T	Microplate reader	Animal and plant tissue	Enzyme Activity	The reducing sugar reacts with 3,5-dinitrosalicylic acid under heating conditions to produce a brown-red substance, which is inactivated by the thermolabile nature of β-amylase, and then the enzyme activity of α-amylase	0.97 U/g tissue	0.97-34.74 U/g tissu	Enzymes,Others

						is determined.			
E-BC-K006-M	α-Amylase and β-amylase Activity Assay Kit	96T	Microplate reader	Serum, Plasma, saliva, tissue	Enzyme Activity	The reducing sugar reacts with 3,5-dinitrosalicylic acid under heating conditions to produce a brown-red substance. Amylase activity can be calculated by measuring the OD value at 540 nm.	0.008 U/mL	0.01-0.56 U/mL	Enzymes,Others
E-BC-K005-M	β-Amylase Activity Assay Kit	96T, 500Assays	Microplate reader	Plant tissue	Enzyme Activity	The reducing sugar reacts with 3,5-dinitrosalicylic acid under heating conditions to produce a brown-red substance. β-amylase was inactivated by the property of amylase not to be heat-resistant, and then the enzyme activity of total amylase and α-amylase is determined. So the activity of β-amylase can be calculated indirectly.	0.97 U/g tissue	0.97-34.74 U/g tissu	Enzymes,Others
E-BC-K064-S	β-N-acetyl-glucosaminidase (NAG) Activity Assay Kit	50Assays	Spectrophotometer			#N/A			Enzymes
E-BC-K852-M	γ-Aminobutyric Acid (GABA) Colorimetric Assay Kit	96T, 48T	Microplate reader	Plant and Animal Tissue	Quantitative	Phenol and sodium hypochlorite react with GABA to produce a blue-green product, which has maximum absorbance at 640 nm. GABA content can be calculated with the absorbance at 640 nm.	0.06 μmol/mL	0.06-10.0 μmol/mL	Amino acids & proteins
E-BC-K126-M	γ-Glutamyl Transferase (γ-GT) Activity Assay Kit	96T, 48T	Microplate reader	Serum, Plasma, Animal Tissue	Enzyme Activity	γ-GT catalyzes the transfer of gamma glutamyl group from glutamyl p-nitroaniline to N-glycyl glycine to produce p-nitroaniline, which has characteristic absorption peak at 405nm. The activity of γ-GT can be calculated according to the changing rate of absorbance value.	0.88 U/L	0.88-399.4 U/L	Enzymes,Liver Biomarkers