

Products And Custom Services For ELISA Kit



US

500W Cummings Park,
Ste. 6500 Woburn, MA 01801
E-mail: info@abclonal.com

China

Precision Medicine Industry Park,
No.9 Gaokeyuan 3rd. Road, Jiangxia District,
Wuhan, Hubei
E-mail: cn.market@abclonal.com

UK

unit 4, Baglan Bay Innovation Centre,
Port Talbot, SA12 7AX
E-mail: info@abclonal.com

Germany

Prinzenallee 7,
40549 Düsseldorf
E-mail: info@abclonal.com

Korea

#A103 Hyundai Knowledge Industry Center,
3, Godeung-ro, Sujeong-gu, Seongnam-si,
Gyeonggi-do, Korea (13105)
E-mail: info@abclonal.co.kr

Company Profile

ABclonal is an innovative leader in the field of global customized biological reagent services. Through years of painstaking operation and development, company aims to provide professional, reliable and market-oriented high-quality products and services for basic research, transformation research, precision medicine and frontier field of biomedicine. Our main business includes scientific research antibodies, molecular enzyme products, NGS library building kits, active recombinant proteins, diagnostic antigen antibody raw materials, ELISA kits and CRO service. Our CRO services mainly include antibody and protein technical services, immunological testing technical services, etc.

Antibody | Protein | ELISA Kits | Enzyme | NGS | Service

CONTENTS

1. Product introduction	01
2. Product advantages	02
3. Product testing	03
4. Featured product display	06
4.1 Covid-19 related protein	06
4.2 Cytokine	07
4.3 Growth factor	10
4.4 Chemokine	11
4.5 Neurotrophic factor	11
4.6 Hormone	11
4.7 Other secreted protein	12
4.8 Proteases	13
4.9 Plasma or serum protein	13
4.10 Other protein	13
4.11 Partial literature display	14
5. Cooperative development of immunodiagnostic antibody pairs and ELISA Kit	15
6. Service process	18
7. Service case	19
8. Service content and timeline	20
9. Problems and solutions of ELISA experiment	21

ELISA KITS



PRODUCT MERITS



High quality antibody

The paired antibodies of all kits have been strictly selected and tested. Among them, ABclonal fourth generation specific recombinant monoclonal antibody development platform provides a good foundation for the specificity, sensitivity and inter batch consistency of antibodies.



Strict internal verification

During research and development, all kits will use a variety of methods to detect the quality of antibodies (for example, gene overexpression or knockout cell samples) and optimize the reaction system to ensure reliability and stability of the kits.



Personalized customization

ABclonal can provide customization services to meet your unique needs in analysis and development if you cannot find a suitable kit in the market.

Brief introduction

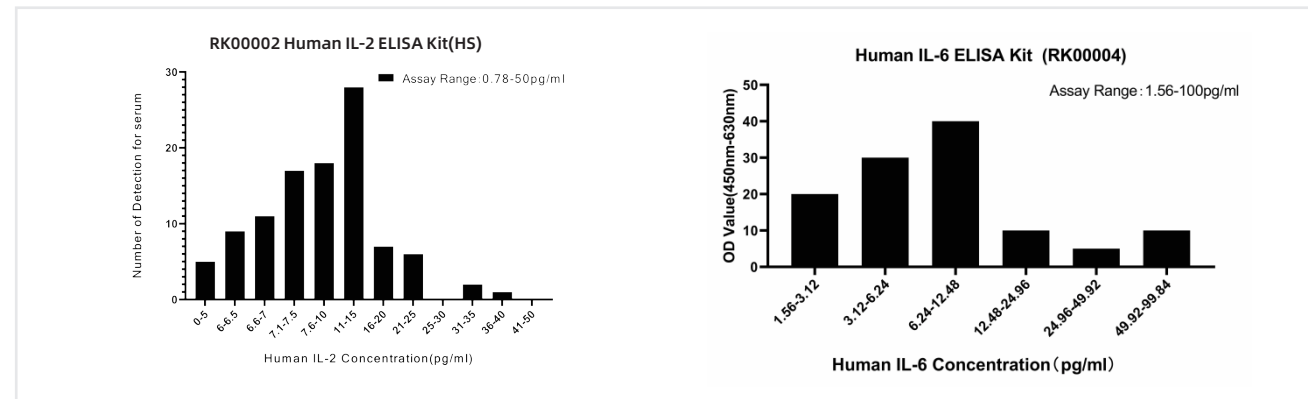
Enzyme linked immunosorbent assay (ELISA) is a reliable technique widely used to detect the content of antigen and antibody in samples. ABclonal R&D team consists of senior industry scientists dedicated to developing kits of guaranteed quality and reliability. At present, the product series cover human, mouse, rat and other conventional detection species, and 400 specific target ELISA kits. The product categories include a variety of cytokines, chemokines, growth factors, proteases and other molecules. Meanwhile, ABclonal also provide customized services for the development of ELISA test kits and the screening of antibody pairs.

PRODUCT QUALITY CONTROL

To ensure reliable and repeatable results, ABclonal will perform the following internal tests before each kit leaves the factory.

Sensitivity

The sensitivity of each kit is determined by repeated experimental analysis using the standard.



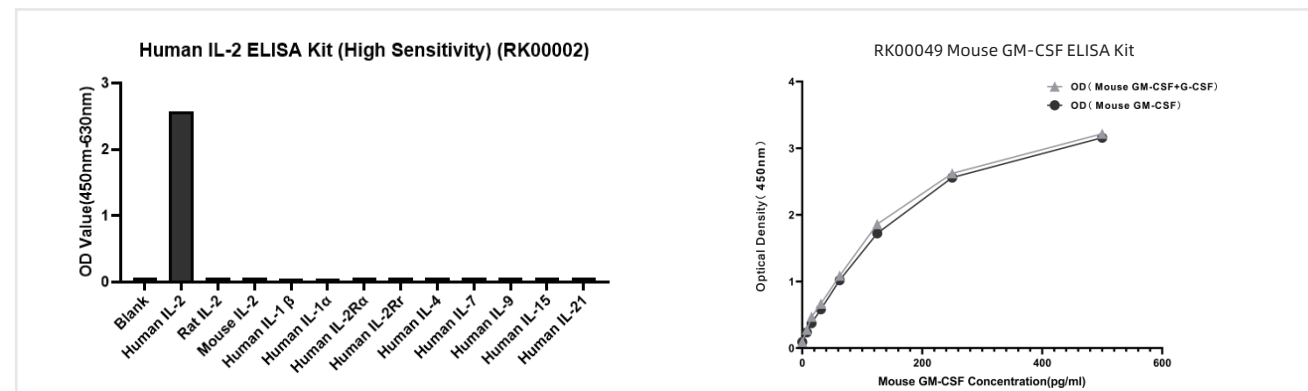
Representative products: RK00002 Human IL-2 ELISA Kit(HS)

RK00004 Human IL-6 ELISA Kit

The minimum value of detectable quantity does not mean equal to zero. It is derived from the sum of OD value and double standard deviation through 20 blank hole and multiple hole tests, and the calculation of the corresponding analyte concentration from the standard curve. Therefore, the higher the sensitivity, the lower the detection limit.

Specificity

Verify that the target protein is detected without cross reaction.



Representative products: RK00002 Human IL-2 ELISA Kit(HS)

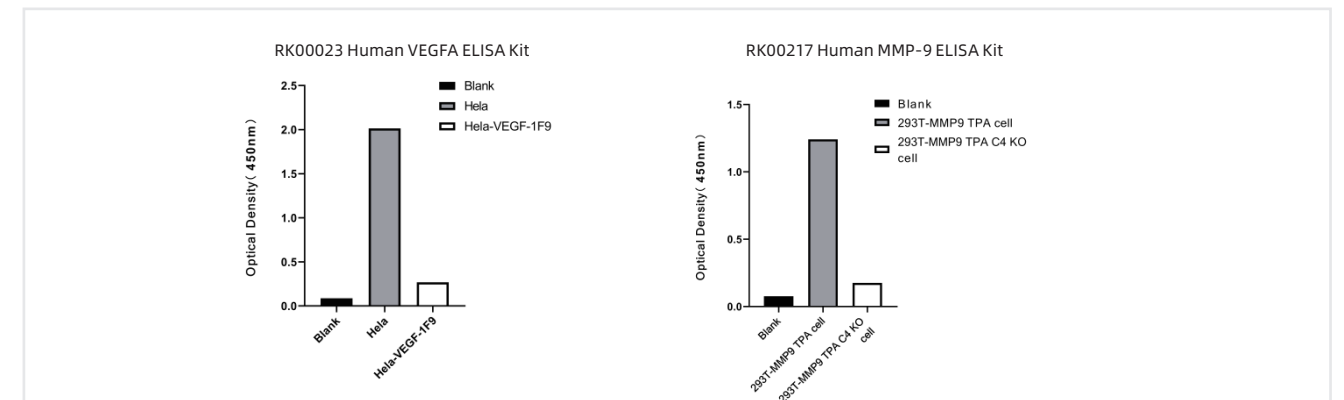
RK00049 Mouse GM-CSF ELISA Kit

Select proteins and related receptors that are similar to human IL-2 in structure and have high species homology for specificity analysis, and use the protein concentration further higher than the detection limit for test analysis.

Requirement: no cross reaction

Knock out verification

Use gene editing technology to verify whether the kit recognizes the protein expression in natural state.



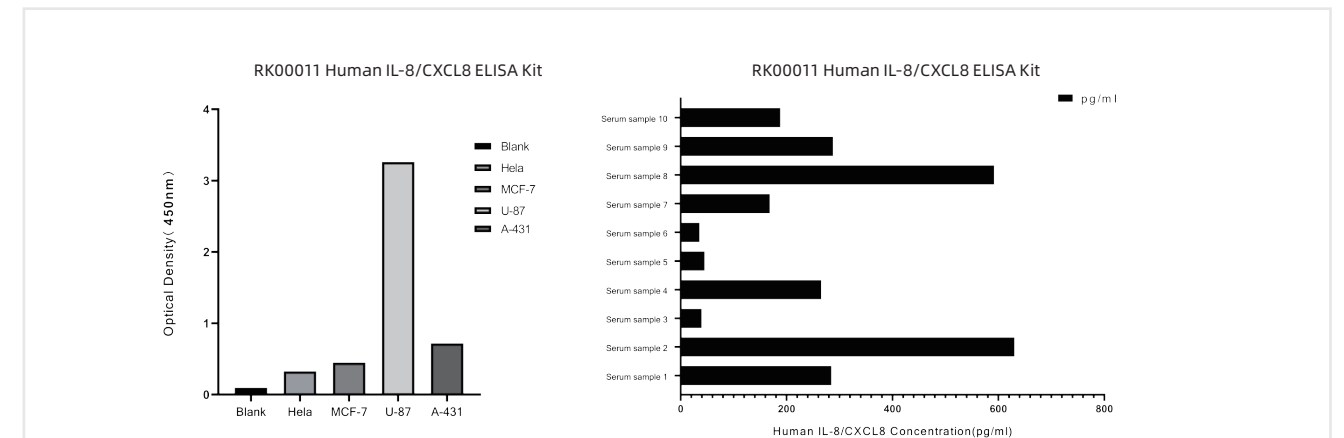
Representative products: RK00023 Human VEGFA ELISA Kit

RK00217 Human MMP-9 ELISA Kit

Through gene editing technique, VEGFA gene knockout HeLa cell lysate was compared with wild-type HeLa cell lysate. It shows that the expression of VEGFA was significantly reduced if compared with wild-type cells. Therefore, the kit can specifically recognize the protein expression in natural state.

Sample validation

According to the in vivo expression characteristics of different research targets, select specific samples (serum, plasma, cell lysate, cell supernatant, etc.) for endogenous verification to determine the applicability.



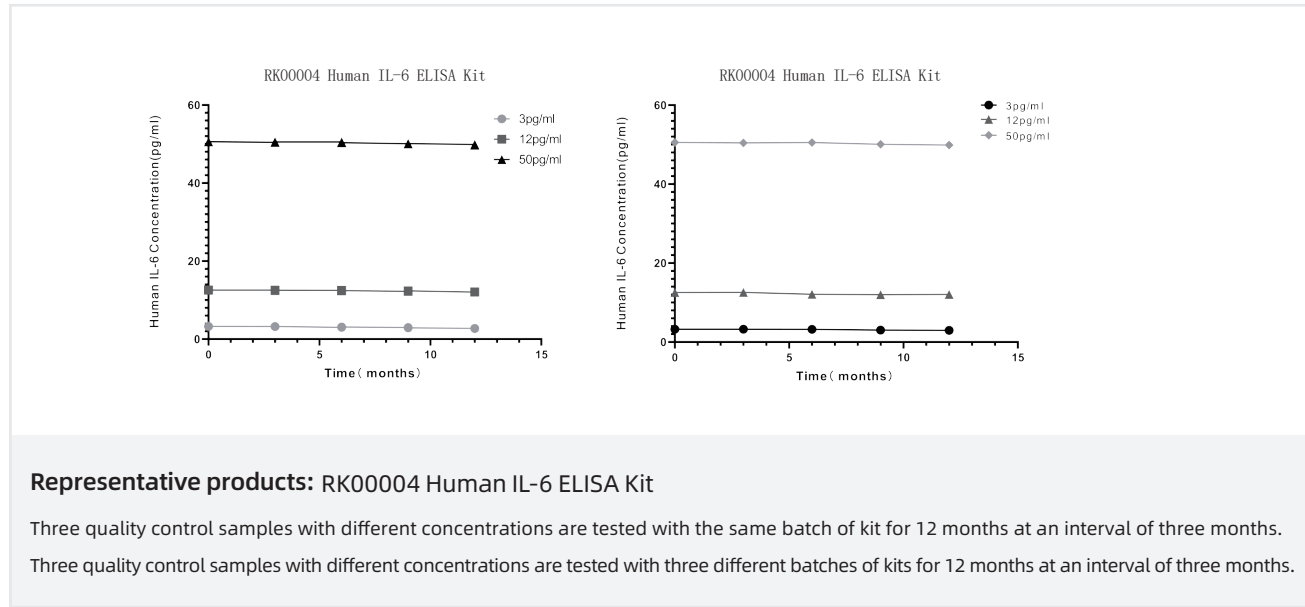
Representative products: RK00011 Human IL-8/CXCL8 ELISA Kit

Using lysates of different cell lines to analyze the protein expression, we can obtain the same expression analysis as reported in the literature, and better detection data can also be obtained from the detection of serum samples.

PRODUCTS & CUSTOM SERVICES FOR ELISA KITS

Stability

To ensure reliable and repeatable results, ABclonal will perform the following internal tests before each kit leaves the factory.



Rate of recovery

Through the recovery test, it is determined that the detection system does not interfere with the target protein, so as to ensure the accuracy of the detection.

Sample type	Average recovery (%)	Recovery range(%)
Serum (n=10)	95	90-105
Heparin plasma (n=10)	95	89-112
Cell culture medium (n=10)	101	96-107

Representative products: RK00052 Human Monocyte Chemotactic Protein 1 ELISA Kit (MCP1)

Add the analytes of high, medium and low concentrations to the corresponding samples (serum, plasma and cell supernatant) for detection, and calculate the protein recovery. At least 5 different samples shall be selected for each sample, and the average recovery and recovery range shall be calculated. The recovery rate shall be 80%-120%. Determine whether the ELISA product is affected by interference factors through recovery test. If interference factors affect the recovery test, ABclonal will optimize the reaction system for each product to ensure that the detection system can avoid the interference of matrix effect to the greatest extent, so that the kit products can accurately quantify the target protein in the test samples.

PRODUCTS & CUSTOM SERVICES FOR ELISA KITS

FEATURED PRODUCT

COVID-19 RELATED ELISA Kits



Cat.No.	Product name	Sensitivity	Linear range
RK04194	SARS-CoV-2 Inhibitor Screening Kit (RBD)	15.1 ng/mL	22.2~1800 ng/mL
RK04154	SARS-CoV-2 Spike S1 Protein ELISA Kit	32.22 pg/mL	0.156~10 ng/mL
RK04138	SARS-COV-2 Spike S1 Protein IgG Antibody ELISA Kit	/	/
RK04145	SARS-COV-2 Spike S1 Protein Antibody ELISA Kit	182.1 pg/mL	0.78~50 ng/mL
RK04135	SARS-COV-2 Spike RBD Protein ELISA Kit	6.5 pg/mL	15.6~1000 pg/mL
RK04137	SARS-COV-2 Spike RBD Protein IgG Antibody ELISA Kit	/	/
RK04144	SARS-COV-2 Spike RBD Protein Antibody ELISA Kit	0.78 ng/mL	1.56~100 ng/mL
RK04136	SARS-CoV-2 Nucleocapsid Protein ELISA Kit	3.2 pg/mL	7.8~500 pg/mL
RK04139	SARS-COV-2 Nucleocapsid Protein IgG Antibody ELISA Kit	/	/
RK04159	SARS-CoV-2 S1+S2 ECD(S-ECD) Protein ELISA Kit	14.2 pg/mL	39~2500 pg/mL
RK04156	SARS-COV-2 S1+S2 ECD(S-ECD) Protein IgG ELISA Kit	/	/
RK04158	SARS-CoV-2 S1+S2 ECD(S-ECD) Protein Antibody ELISA Kit	1.22 ng/mL	3.12~200 ng/mL

COVID-19 RELATED ELISA ANTIBODY PAIRS



Cat.No.	Product name	Application	Pairing information
RM17574	Rabbit anti-SARS-CoV-2 Nucleocapsid Protein mAb (CAP)	ELISA	RM17574 / RM17575
RM17575	Rabbit anti-SARS-CoV-2 Nucleocapsid Protein mAb (DET)	ELISA	
RM17615	Rabbit anti-SARS-CoV-2 Nucleocapsid Protein mAb(CAP/DET)	ELISA	RM17615 / RM17616
RM17614	Rabbit anti-SARS-CoV-2 Nucleocapsid Protein mAb (CAP)	ELISA	RM17614 / RM17615
RM17616	Rabbit anti-SARS-CoV-2 Nucleocapsid Protein mAb(DET)	ELISA	
RM17618	Rabbit anti-SARS-CoV-2 Nucleocapsid Protein mAb(CAP)	ELISA	RM17618 / RM17615
RM17617	Rabbit anti-SARS-CoV-2 Nucleocapsid Protein mAb(DET)	ELISA	RM17615 / RM17617
RM17616	Rabbit anti-SARS-CoV-2 Nucleocapsid Protein mAb(DET)	ELISA	
RM17618	Rabbit anti-SARS-CoV-2 Nucleocapsid Protein mAb(CAP)	ELISA	
RM17617	Rabbit anti-SARS-CoV-2 Nucleocapsid Protein mAb(DET)	ELISA	

PRODUCTS & CUSTOM SERVICES FOR ELISA KITS

Cat.No.	Product name	Application	Pairing information
RM17584	Anti-SARS-CoV-2 Nucleocapsid Control Antibody, Human MAb	Indirect ELISA	
RM17605	SARS-CoV-2 Nucleoprotein / NP Mouse mAb	ELISA	
RM17604	SARS-CoV-2 Nucleoprotein / NP Mouse mAb	ELISA	
RM17599	Rabbit anti-SARS-CoV-2 S1+S2 ECD (S-ECD) Protein mAb (CAP)	ELISA	RM17599 / RM17600
RM17600	Rabbit anti-SARS-CoV-2 S1+S2 ECD (S-ECD) Protein mAb (DET)	ELISA	
RM17608	Rabbit anti-SARS-CoV-2 Spike RBD Protein mAb(CAP)	ELISA	RM17608 / RM17608
RM17609	Rabbit anti-SARS-CoV-2 Spike RBD Protein mAb(DET)	ELISA	
RM17580	Anti-SARS-CoV-2 Spike RBD Control Antibody, Chimeric MAb	Indirect ELISA	
RM17620	Rabbit anti-SARS-CoV-2 RBD Neutralizing mAb (CAP)	Competitive ELISA	
RM17619	Rabbit anti-SARS-CoV-2 RBD Neutralizing mAb (CAP)	Competitive ELISA	
RM17611	Rabbit anti-SARS-CoV-2 Spike S1 Protein mAb(CAP)	ELISA	RM17611 / RM17612
RM17612	Rabbit anti-SARS-CoV-2 Spike S1 Protein mAb(DET)	ELISA	
RM17582	Anti-SARS-CoV-2 Spike S1 Control Antibody,Chimeric MAb	Indirect ELISA	

CYTOKINES

Cat.No.	Product name	Sensitivity	Linear range
RK00402	Human B-Cell Activating Factor ELISA Kit (BAFF/TNFSF13B/BlyS/CD257)	3.2 pg/mL	7.8~500 pg/mL
RK00086	Human GDF-15 ELISA Kit	4.39 pg/mL	7.8~500 pg/mL
RK00045	Human GM-CSF ELISA Kit	7.8 pg/mL	7.8~500 pg/mL
RK00092	Human IFN alpha ELISA Kit	5.47 pg/mL	10.92~700 pg/mL
RK00015	Human IFN-gamma ELISA Kit	7.3 pg/mL	15.6~1000 pg/mL
RK00031	Human IL-1 alpha ELISA Kit	4 pg/mL	7.8~500 pg/mL
RK00001	Human IL-1 beta ELISA Kit	3.9 pg/mL	6.25~400 pg/mL
RK00012	Human IL-10 ELISA Kit	15.6 pg/mL	31.2~2000 pg/mL
RK00205	Human IL-11 ELISA Kit	3.9 pg/mL	15.6~1000 pg/mL
RK00014	Human IL-12 p70 ELISA Kit	15.1 pg/mL	31.2~2000 pg/mL

PRODUCTS & CUSTOM SERVICES FOR ELISA KITS

Cat.No.	Product name	Sensitivity	Linear range
RK00013	Human IL-12/IL-23 p40 ELISA Kit	7.8 pg/mL	15.6~1000 pg/mL
RK00034	Human IL-13 ELISA Kit	23 pg/mL	46.9~3000 pg/mL
RK00397	Human IL-17 ELISA Kit	4.2 pg/mL	7.8~500 pg/mL
RK00176	Human IL-18 ELISA Kit	12 pg/mL	23.4~1500 pg/mL
RK00175	Human IL-19 ELISA Kit	11.16 pg/mL	31.2~2000 pg/mL
RK04123	Human IL-2 ELISA Kit	3.9 pg/mL	7.8~500 pg/mL
RK00002	Human IL-2 ELISA Kit (HS)	0.39 pg/mL	0.78~50 pg/mL
RK00042	Human IL-22 ELISA Kit	15 pg/mL	31.2~2000 pg/mL
RK00179	Human IL-23 ELISA Kit	7.8 pg/mL	31.2~2000 pg/mL
RK00159	Human IL-27 ELISA Kit	23.4 pg/mL	46.875~3000 pg/mL
RK00156	Human IL-28A/IFN-lambda 2 ELISA Kit	12 pg/mL	15.6~1000 pg/mL
RK00142	Human IL-29/IFN-lambda 1 ELISA Kit	31.25 pg/mL	62.5~4000 pg/mL
RK00022	Human IL-2R ELISA Kit	13.2 pg/mL	31.2~2000 pg/mL
RK00378	Human IL-31 ELISA Kit	10 pg/mL	15.6~1000 pg/mL
RK00182	Human IL-33 ELISA Kit	7.8 pg/mL	23.4~1500 pg/mL
RK00118	Human IL-34 ELISA Kit	15.625 pg/mL	62.5~4000 pg/mL
RK00003	Human IL-4 ELISA Kit	15.2 pg/mL	31.2~2000 pg/mL
RK00033	Human IL-5 ELISA Kit	5.85 pg/mL	11.71~750 pg/mL
RK00004	Human IL-6 ELISA Kit	0.7 pg/mL	1.56~100 pg/mL
RK00121	Human IL-9 ELISA Kit	10 pg/mL	31.2~2000 pg/mL
RK01630	Human Interferon Beta ELISA Kit (IFNβ)	7.8 pg/mL	15.6~1000 pg/mL
RK00044	Human M-CSF ELISA Kit	7 pg/mL	15.6~1000 pg/mL
RK00125	Human MIF ELISA Kit	7.6 pg/mL	15.6~1000 pg/mL
RK00347	Human Thymic Stromal Lymphopoietin ELISA Kit (TSLP)	9.87 pg/mL	31.2~2000 pg/mL
RK00030	Human Tumor Necrosis Factor Alpha ELISA Kit (TNFα)	6.9 pg/mL	15.6~1000 pg/mL

PRODUCTS & CUSTOM SERVICES FOR ELISA KITS

Cat.No.	Product name	Sensitivity	Linear range
RK04121	Human Tumor Necrosis Factor Ligand Superfamily, Member 9 ELISA Kit (TNFSF9)	15.6 pg/mL	31.2-2000 pg/mL
RK04172	Monkey IL-12 p70 ELISA Kit	11.21pg/mL	31.2-2000 pg/mL
RK00058	Monkey IL-6 ELISA Kit	0.71 pg/mL	1.56-100 pg/mL
RK00413	Mouse B-Cell Activating Factor ELISA Kit (BAFF/TNFSF13B/Blys/CD257)	3.2 pg/mL	7.8-500 pg/mL
RK00048	Mouse G-CSF ELISA Kit	2.9 pg/mL	7.8-500 pg/mL
RK00049	Mouse GM-CSF ELISA Kit	3.9 pg/mL	7.8-500 pg/mL
RK00420	Mouse IFN-beta ELISA Kit	7.2 pg/mL	15.6-1000 pg/mL
RK00019	Mouse IFN-gamma ELISA Kit	3.9 pg / mL	15.6-1000 pg/mL
RK00103	Mouse IL-1 alpha ELISA Kit	7.8 pg/mL	15.6-1000 pg/mL
RK00006	Mouse IL-1 beta ELISA Kit	7.8 pg/mL	15.6-1000 pg/mL
RK00016	Mouse IL-10 ELISA Kit	15.6 pg/mL	31.2-2000 pg/mL
RK00155	Mouse IL-11 ELISA Kit	7.8 pg/mL	15.6-1000pg/mL
RK00018	Mouse IL-12 p70 ELISA Kit	19.6 pg/mL	39.1-2500 pg/mL
RK00017	Mouse IL-12/IL-23 p40 ELISA Kit	11.23 pg/mL	31.2-2000 pg/mL
RK00106	Mouse IL-15 ELISA Kit	31.2pg/mL	62.5-4000 pg/mL
RK00039	Mouse IL-17A ELISA Kit	4.1 pg/mL	15.6-1000 pg/mL
RK00007	Mouse IL-2 ELISA Kit	3.91 pg/mL	7.8-500 pg/mL
RK00102	Mouse IL-23 ELISA Kit	9.86 pg/mL	19.5-1250 pg/mL
RK04119	Mouse IL-24 ELISA Kit	7.9pg/mL	15.6-1000 pg/mL
RK00115	Mouse IL-33 ELISA Kit	15.75 pg/mL	31.2-2000 pg/mL
RK00036	Mouse IL-4 ELISA Kit	3.9 pg/mL	15.6-1000 pg/mL
RK00037	Mouse IL-5 ELISA Kit	31.25 pg/mL	62.5-4000 pg/mL
RK00008	Mouse IL-6 ELISA Kit	7.2 pg/mL	15.6-1000 pg/mL
RK00189	Mouse Thymic Stromal Lymphopoietin ELISA Kit (TSLP)	5.5 pg/mL	15.6-1000 pg/mL
RK00027	Mouse Tumor Necrosis Factor Alpha ELISA Kit (TNFa)	6.5 pg/mL	15.6-1000 pg/mL

PRODUCTS & CUSTOM SERVICES FOR ELISA KITS

Cat.No.	Product name	Sensitivity	Linear range
RK00199	Rat IFN-gamma ELISA Kit	18.1 pg/mL	53-5000 pg/ml
RK00098	Rat IL-1 alpha ELISA Kit	7.91pg/ml	15.6-1000pg/mL
RK00009	Rat IL-1 beta ELISA Kit	13.22 pg/mL	62.5-4000 pg/mL
RK00050	Rat IL-10 ELISA Kit	3.26 pg/mL	15.6-1000 pg/ml
RK00010	Rat IL-2 ELISA Kit	15.1 pg/mL	31.2-2000pg/ml
RK00040	Rat IL-4 ELISA Kit	7.5 pg/ml	15.6-1000 pg/ml
RK00020	Rat IL-6 ELISA Kit	31.25 pg/mL	125-8000 pg/ml
RK00029	Rat Tumor Necrosis Factor Alpha ELISA Kit (TNFa)	15.2 pg/mL	31.2-2000pg/ml

GROWTH FACTORS

Cat.No.	Product name	Sensitivity	Linear range
RK00024HS	Human EGF ELISA Kit (High Sensitivity)	0.8 pg/mL	1.56-100 pg/ml
RK00364	Mouse EGF ELISA Kit	7.8pg/ml	15.6-1000pg/mL
RK00021	Human FGF basic ELISA Kit	4.2 pg/mL	15.6-1000pg/ml
RK00358	Mouse bFGF ELISA Kit	7.89pg/ml	15.6-1000pg/mL
RK00160	Human IGF-1 ELISA Kit	0.15 ng/mL	0.312-20ng/ml
RK00171	Mouse Insulin Like Growth Factor 1 ELISA Kit (IGF1)	7.8 pg/mL	15.6-1000pg/ml
RK04112	Human PDGF-BB ELISA Kit	12.3 pg/mL	31.2-2000pg/ml
RK00023	Human VEGFA ELISA Kit	7.8 pg/mL	31.2-2000pg/ml
RK00028	Mouse VEGFA ELISA Kit	0.78 pg/mL	3.9-250pg/ml
RK00066	Rat VEGFA ELISA Kit	7.81 pg/mL	15.6-1000 pg/ml
RK04125	Monkey VEGFA ELISA Kit	27 pg/mL	31.2-2000pg/ml
RK00055	Human TGF-beta 1 ELISA Kit	11.1 pg/mL	31.2-2000 pg/ml
RK00057	Mouse TGF-beta 1 ELISA Kit	3.9 pg/mL	7.8-500 pg/mL
RK00059	Rat Transforming Growth Factor Beta 1 ELISA Kit (TGFb1)	31.1 pg/mL	31.2-2000pg/ml
RK02551	Monkey Transforming Growth Factor Beta 1 ELISA Kit (TGFb1)	6.5 pg/mL	31.2-2000pg/ml
RK03371	Porcine Transforming Growth Factor Beta 1 ELISA Kit (TGFb1)	11.9 pg/mL	31.2-2000pg/ml
RK04050	Bovine Transforming Growth Factor Beta 1 ELISA Kit (TGFb1)	15.1 pg/mL	31.2-2000 pg/ml

PRODUCTS & CUSTOM SERVICES FOR ELISA KITS

CHEMOKINES

Cat.No.	Product name	Sensitivity	Linear range
RK00077	Human CCL5/Rantes ELISA Kit	6.9 pg/mL	31.2-2000 pg/mL
RK00011	Human IL-8/CXCL8 ELISA Kit	1.7 pg/mL	3.9-250 pg/ml
RK00054	Human CXCL10/IP10 ELISA Kit	12.6 pg/mL	31.2-2000 pg/ml
RK00056	Mouse CXCL10/IP10 ELISA Kit	15.2 pg/mL	62.5-4000 pg/ml
RK00266	Human CXCL12/SDF-1 ELISA Kit	0.051 ng/mL	0.156-10 ng/mL.
RK00168	Mouse CXCL12/SDF-1 ELISA Kit	23 pg/mL	46.8-3000pg/ml
RK00150	Human CXCL2/GRO-beta ELISA Kit	0.12ng/ml	0.312-20ng/mL
RK00207	Human MIP-3 alpha/CCL20 ELISA Kit	3.4 pg/mL	7.8-500pg/ml
RK00052	Human Monocyte Chemotactic Protein 1 ELISA Kit (MCP1)	15.2 pg/mL	31.2-2000pg/ml
RK00381	Mouse Monocyte Chemotactic Protein 1 ELISA Kit (MCP1)	1.5 pg/mL	3.12-200pg/ml
RK00038	Mouse CXCL1/KC ELISA Kit	7 pg/mL	15.6-1000pg/ml

NEUROTROPHIC FACTORS

Cat.No.	Product name	Sensitivity	Linear range
RK00154	Human Beta-nerve growth factor ELISA Kit (NGFB)	4.2 pg/mL	15.6-1000pg/ml
RK00074	Human Brain Derived Neurotrophic Factor ELISA Kit (BDNF)	6.3 pg/ml	23.4-1500pg/ml
RK00433	Mouse Brain Derived Neurotrophic Factor ELISA Kit (BDNF)	6.8pg/ml	23.4-1500pg/ml
RK03527	Rat Brain Derived Neurotrophic Factor ELISA Kit (BDNF)	7.32 pg/mL	23.4-1500pg/ml
RK00291	Human GDNF ELISA Kit	7.9 pg/mL	15.6-1000pg/ml

HORMONES

Cat.No.	Product name	Sensitivity	Linear range
RK00639	General Cortisol ELISA Kit (Cor)	0.93 ng/mL	2.47-200ng/ml
RK00724	General Testosterone ELISA Kit	1.95 pg / mL	3.9-250pg / mL
RK00719	General Triiodothyronine ELISA Kit (T3)	1.65 pg/mL	4.94-400ng/mL
RK00060	Human Adiponectin ELISA Kit(ADP)	30.2 pg/mL	62.5-4000pg/ml

PRODUCTS & CUSTOM SERVICES FOR ELISA KITS

Cat.No.	Product name	Sensitivity	Linear range
RK02574	Mouse Adiponectin ELISA Kit (ADP)	7.1 pg/mL	15.6-1000 pg/mL
RK00035	Human Leptin ELISA Kit	15.6 pg/mL	31.2-2000 pg/mL
RK00380	Mouse Leptin ELISA Kit(LEP)	54 pg/mL	125-8000 pg/mL
RK03790	Rat Leptin ELISA Kit (LEP)	44 pg/mL	125-8000 pg/mL
RK00005	Human MIS/AMH ELISA Kit	40.5 pg/mL	156-10000 pg/mL
RK00302	Human/Swine/Canine Insulin ELISA Kit	7 pg/mL	15.6-1000 pg/mL
RK02456	Human Thyroid Stimulating Hormone ELISA Kit (TSH)	15.3 pg/mL	31.3-2000 pg/mL

OTHER SECRETED PROTEINS

Cat.No.	Product name	Sensitivity	Linear range
RK01135	Human Clusterin ELISA Kit (CLU)	0.078 ng/mL	0.156-10 ng/mL
RK04129	Human Dickkopf-related protein 3 ELISA Kit	62.5 pg/mL	125-8000 pg/mL
RK01410	Human Fibronectin Type III Domain Containing Protein 5 ELISA Kit (FNDC5)	6.9 pg/mL	31.2-2000 pg/mL
RK00289	Human Follistatin ELISA Kit	0.098ng/mL	0.156-10 ng/mL
RK01837	Human Meteorin Like Protein ELISA Kit (METRNL)	6.4 pg/mL	15.6-1000 pg/mL
RK01885	Human Myostatin ELISA Kit (MSTN)	28 pg/mL	62.5-4000 pg/mL
RK03043	Mouse Myostatin ELISA Kit (MSTN)	29 pg/mL	62.5-4000 pg/mL
RK03823	Rat Myostatin ELISA Kit (MSTN)	31.1 pg/mL	62.5-4000 pg/mL
RK03357	Porcine Myostatin ELISA Kit (MSTN)	31.1 pg/mL	62.5-4000 pg/mL
RK00224	Human Neutrophil defensin 1 ELISA Kit (DEFA1)	33pg/mL	78-5000 pg/mL
RK00132	Human Neutrophil Gelatinase Associated Lipocalin ELISA Kit	0.32 ng/mL	0.625-40 ng/mL
RK02234	Human S100 Calcium Binding Protein B ELISA Kit (S100B)	23.5 pg/mL	46.9-3000 pg/mL
RK04132	Human Soluble Tyrosine-protein kinase receptor UFO(sAXL) ELISA Kit	0.085 ng/mL	0.156-10ng/mL

PRODUCTS & CUSTOM SERVICES FOR ELISA KITS

PROTEASES

Cat.No.	Product name	Sensitivity	Linear range
RK01274	Human Deoxyribonuclease I ELISA Kit (DNASE1)	0.78 ng/mL	1.56-100ng/mL
RK01966	Human Enolase, Neuron Specific ELISA Kit (NSE)	0.156 ng/mL	0.312-20ng/mL
RK00309	Human Matrix Metalloproteinase 2 ELISA Kit (MMP2)	0.28 ng/mL	0.625-40ng/mL
RK00217	Human MMP-9 ELISA Kit	15.2 pg/mL	31.2-2000 pg/mL

PLASMA OR SERUM PROTEINS

Cat.No.	Product name	Sensitivity	Linear range
RK00355	Human alpha-fetoprotein/AFP ELISA Kit	0.12 ng/mL	0.19-12.5 ng/mL
RK00917	Human Apolipoprotein A5 ELISA Kit (APOA5)	0.16 ng/mL	0.31-20 ng/mL
RK00925	Human Apolipoprotein D ELISA Kit (APOD)	0.36 ng/mL	0.78-50 ng/mL
RK00986	Human Apolipoprotein D ELISA Kit (APOD)	15.6 pg/mL	31.2-2000 pg/mL
RK00078	Human C-Reactive Protein/CRP ELISA Kit	0.152 ng/mL	0.312-20 ng/mL
RK01443	Human Growth Arrest Specific Protein 6 ELISA Kit (GAS6)	0.18 ng/mL	0.312-20 ng/mL
RK00375	Mouse IgG(Total) ELISA Kit	0.08 ng/mL	1.56-100 ng/mL
RK00173	Mouse IgM ELISA Kit	0.16 ng/mL	0.313-20 ng/mL
RK00078	Human C-Reactive Protein/CRP ELISA Kit	0.152 ng/mL	0.312-20 ng/mL
RK00195	Rat C-Reactive Protein/CRP ELISA Kit	0.15 ng/mL	0.312-20 ng/mL
RK00172	Rat IgG ELISA Kit	0.78 ng/mL	1.56-100 ng/mL
RK00204	Rat IgM ELISA Kit	0.0192 ng/mL	0.312-20 ng/mL
RK00158	Rat Immunoglobulin A ELISA Kit (IgA)	0.8 ng/mL	1.56-100 ng/mL

PRODUCTS & CUSTOM SERVICES FOR ELISA KITS



OTHER PROTEINS

Cat.No.	Product name	Sensitivity	Linear range
RK00858	Human Alpha-Lactalbumin ELISA Kit (LALBA)	0.38 ng/mL	0.78-50 ng/mL
RK00904	Human Annexin A6 ELISA Kit (ANXA6)	0.069 ng/mL	0.156-10 ng/mL
RK01042	Human Caveolin 1 ELISA Kit (CAV1)	35 pg/mL	78-5000 pg/mL
RK01060	Human Cluster Of Differentiation 14 ELISA Kit (CD14)	0.13 ng/mL	0.23-15 ng/mL
RK00280	Human EPOR ELISA Kit	34.1 pg/mL	78-5000 pg/mL
RK01358	Human Factor Related Apoptosis Ligand ELISA Kit (FASL)	10.4 pg/mL	31.2-2000 pg/mL
RK04126	Human Leukocyte surface antigen CD44 ELISA Kit (CD44)	32 pg/mL	78.1-5000 pg/mL
RK04171	Human Leukocyte surface antigen CD47 ELISA Kit	0.12 ng/mL	0.312-20 ng/mL
RK04115	Human Programmed Death Ligand 1 ELISA Kit (PD-L1/B7-H1/CD274)	0.195 ng/mL	0.156-10 ng/mL
RK04116	Human Proliferating cell nuclear antigen ELISA Kit (PCNA)	0.055 ng/mL	0.39-25 ng/mL
RK00137	Human P-selectin ELISA Kit	12.1pg/mL	31.2-2000 pg/mL
RK00141	Human sE-selectin/CD62E ELISA Kit	28 pg/mL	62.5-4000 pg/mL
RK04128	Human Transcription regulator protein BACH1 ELISA Kit	22.15 pg/mL	46.87-3000 pg/mL
RK04131	Human Tyrosine-protein kinase receptor TYRO3 ELISA Kit	0.072 ng/mL	0.156-10 ng/mL
RK00360	Mouse VCAM-1 ELISA Kit	15.62 pg/mL	31.2-2000 pg/mL
RK04191	Human CD81 ELISA Kit	0.112 ng/mL	0.312-20 ng/mL

PRODUCTS & CUSTOM SERVICES FOR ELISA KITS

PRODUCT CITATIONS

Cat.No.	Product Name	Journal	Time of Publication	Title	PMID
RK00008	Mouse IL-6 ELISA Kit	Journal of Pineal Research	2020	Melatonin prevents neuroinflammation and relieves depression by attenuating autophagy impairment through FOXO3a regulation	32375205
RK00027	Mouse Tumor Necrosis Factor Alpha ELISA Kit (TNFa)	Journal of Pineal Research	2020	Melatonin prevents neuroinflammation and relieves depression by attenuating autophagy impairment through FOXO3a regulation	32375205
RK00006	Mouse IL-1 beta ELISA Kit	Hepatology (Baltimore, Md.)	2020	miR-210 participates in hepatic ischemia reperfusion injury by forming a negative feedback loop with SMAD4	32155285
RK01574	Human High Mobility Group Protein 1 ELISA Kit (HMG1)	Nature Communications	2020	Arf1-mediated lipid metabolism sustains cancer cells and its ablation induces anti-tumor immune responses in mice	31924786
RK00008	Mouse IL-6 ELISA Kit	Chemical Science	2019	Development of a dual-functional conjugate of antigenic peptide and Fc-III mimetics (DCAF) for targeted antibody blocking.	30996912
RK00011	Human IL-8/CXCL8 ELISA Kit	Biomaterials	2019	Multifunctional nanoparticles based on a polymeric copper chelator for combination treatment of metastatic breast cancer.	30623789
RK00309	Human Matrix Metalloproteinase 2 ELISA Kit (MMP2)	Biomaterials	2019	Multifunctional nanoparticles based on a polymeric copper chelator for combination treatment of metastatic breast cancer.	30623789
RK00023	Human VEGFA ELISA Kit	Biomaterials	2019	Multifunctional nanoparticles based on a polymeric copper chelator for combination treatment of metastatic breast cancer.	30623789
RK00103	Mouse IL-1 alpha ELISA Kit	Biomaterials	2019	Multifunctional nanoparticles based on a polymeric copper chelator for combination treatment of metastatic breast cancer.	30623789
RK00041	Human IL-21 ELISA Kit	Theranostics	2020	Characterization of IL-21-expressing recombinant hepatitis B virus (HBV) as a therapeutic agent targeting persisting HBV infection	32373234
RK01517	Human Gasdermin D ELISA Kit (GSDMD)	Cell death & disease	2019	Endothelial cell pyroptosis plays an important role in Kawasaki disease via HMGB1/RAGE/cathepsin B signaling pathway and NLRP3 inflammasome activation	31611559
RK00001	Human IL-1 beta ELISA Kit	Cell death & disease	2019	Endothelial cell pyroptosis plays an important role in Kawasaki disease via HMGB1/RAGE/cathepsin B signaling pathway and NLRP3 inflammasome activation	31611559
RK00176	Human IL-18 ELISA Kit	Cell death & disease	2019	Endothelial cell pyroptosis plays an important role in Kawasaki disease via HMGB1/RAGE/cathepsin B signaling pathway and NLRP3 inflammasome activation	31611559

PRODUCTS & CUSTOM SERVICES FOR ELISA KITS

Cat.No.	Product Name	Journal	Time of Publication	Title	PMID
RK00006	Mouse IL-1 beta ELISA Kit	FASEB Journal : Official Publication of the Federation of American Societies for Experimental Biology	2020	TRAF3 promotes ROS production and pyroptosis by targeting ULK1 ubiquitination in macrophages	32275117
RK02278	Human Sodium/ Glucose Cotransporter 1 ELISA Kit (SGLT1)	BMJ Open Diabetes Research & Care	2020	Lactobacillus salivarius AP-32 and Lactobacillus reuteri GL-104 decrease glycemic levels and attenuate diabetes-mediated liver and kidney injury in db/db mice.	32332068
RK00008	Mouse IL-6 ELISA Kit	Oxidative Medicine and Cellular Longevity	2018	Anti-Inflammatory Effect of a Polyphenol-Enriched Fraction from Acalypha wilkesiana on Lipopolysaccharide-Stimulated RAW 264.7 Macrophages and Acetaminophen-Induced Liver Injury in Mice.	30159118
RK00006	Mouse IL-1 beta ELISA Kit	Oxidative Medicine and Cellular Longevity	2019	The Protective Effects of Imperatorin on Acetaminophen Overdose-Induced Acute Liver Injury.	32454943
RK00008	Mouse IL-6 ELISA Kit	Oxidative Medicine and Cellular Longevity	2019	The Protective Effects of Imperatorin on Acetaminophen Overdose-Induced Acute Liver Injury.	32454943
RK00027	Mouse Tumor Necrosis Factor Alpha ELISA Kit (TNFa)	Oxidative Medicine and Cellular Longevity	2019	The Protective Effects of Imperatorin on Acetaminophen Overdose-Induced Acute Liver Injury.	32454943
RK00006	Mouse IL-1 beta ELISA Kit	Oxidative Medicine and Cellular Longevity	2020	The Protective Effects of Imperatorin on Acetaminophen Overdose-Induced Acute Liver Injury	32454943
RK00008	Mouse IL-6 ELISA Kit	Oxidative Medicine and Cellular Longevity	2020	The Protective Effects of Imperatorin on Acetaminophen Overdose-Induced Acute Liver Injury	32454943
RK00027	Mouse Tumor Necrosis Factor Alpha ELISA Kit (TNFa)	Oxidative Medicine and Cellular Longevity	2020	The Protective Effects of Imperatorin on Acetaminophen Overdose-Induced Acute Liver Injury	32454943
RK00055	Human TGF-beta 1 ELISA Kit	The FEBS Journal	2019	Dramatically changed immune-related molecules as early diagnostic biomarkers of non-small cell lung cancer.	31482685
RK00006	Mouse IL-1 beta ELISA Kit	Frontiers in Immunology	2019	Platelet-Derived Exosomal MicroRNA-25-3p Inhibits Coronary Vascular Endothelial Cell Inflammation Through Adam10 via the NF-κB Signaling Pathway in ApoE -/- Mice.	31632389
RK00008	Mouse IL-6 ELISA Kit	Frontiers in Immunology	2019	Platelet-Derived Exosomal MicroRNA-25-3p Inhibits Coronary Vascular Endothelial Cell Inflammation Through Adam10 via the NF-κB Signaling Pathway in ApoE -/- Mice.	31632389
RK00027	Mouse Tumor Necrosis Factor Alpha ELISA Kit (TNFa)	Frontiers in Immunology	2019	Platelet-Derived Exosomal MicroRNA-25-3p Inhibits Coronary Vascular Endothelial Cell Inflammation Through Adam10 via the NF-κB Signaling Pathway in ApoE -/- Mice.	31632389

PRODUCTS & CUSTOM SERVICES FOR ELISA KITS

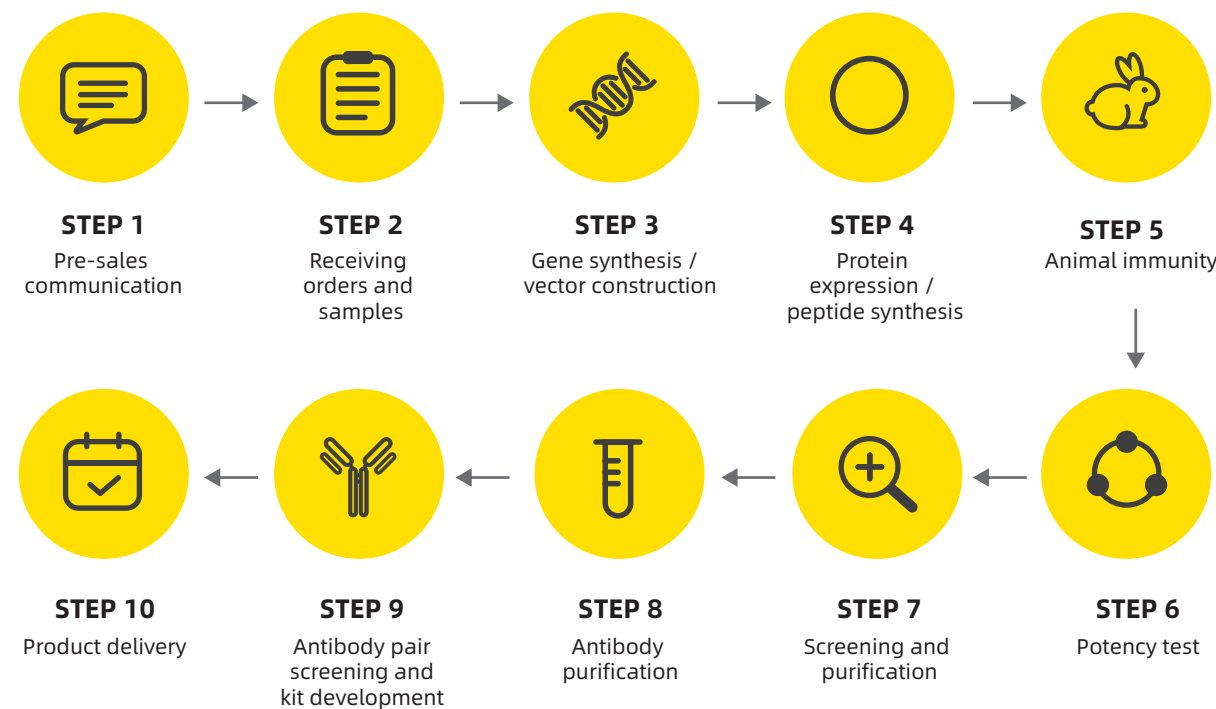
Cat.No.	Product Name	Journal	Time of Publication	Title	PMID
RK00008	Mouse IL-6 ELISA Kit	Frontiers in Immunology	2017	Lab-Attenuated Rabies Virus Causes Abortive Infection and Induces Cytokine Expression in Astrocytes by Activating Mitochondrial Antiviral-Signaling Protein Signaling Pathway.	29403485
RK00027	Mouse Tumor Necrosis Factor Alpha ELISA Kit (TNFa)	Frontiers in Immunology	2017	Lab-Attenuated Rabies Virus Causes Abortive Infection and Induces Cytokine Expression in Astrocytes by Activating Mitochondrial Antiviral-Signaling Protein Signaling Pathway.	29403485
RK02717	Mouse Connective Tissue Growth Factor ELISA Kit (CTGF)	Journal of the American Heart Association	2019	Improved Biomarker and Imaging Analysis for Characterizing Progressive Cardiac Fibrosis in a Mouse Model of Chronic Chagasic Cardiomyopathy	31718442
RK00057	Mouse TGF-beta 1 ELISA Kit	Journal of the American Heart Association	2019	Improved Biomarker and Imaging Analysis for Characterizing Progressive Cardiac Fibrosis in a Mouse Model of Chronic Chagasic Cardiomyopathy	31718442
RK00008	Mouse IL-6 ELISA Kit	Nutrients	2020	Sesamol Alleviates Obesity-Related Hepatic Steatosis via Activating Hepatic PKA Pathway	31991934
RK00027	Mouse Tumor Necrosis Factor Alpha ELISA Kit (TNFa)	Nutrients	2020	Sesamol Alleviates Obesity-Related Hepatic Steatosis via Activating Hepatic PKA Pathway	31991934
RK00006	Mouse IL-1 beta ELISA Kit	Immunology	2020	Histone hyperacetylation mediates enhanced IL-1 β production in LPS/IFN- γ -stimulated macrophages	32061096
RK02008	Human PCNA Associated Factor 15kDa ELISA Kit (PAF)	Scientific reports	2019	Fetal lung C4BPA induces p100 processing in human placenta.	30940885
RK00001	Human IL-1 beta ELISA Kit	International journal of biological sciences	2019	Caffeine Inhibits NLRP3 Inflammasome Activation by Suppressing MAPK/NF- κ B and A2aR Signaling in LPS-Induced THP-1 Macrophages.	31360100
RK00176	Human IL-18 ELISA Kit	International journal of biological sciences	2019	Caffeine Inhibits NLRP3 Inflammasome Activation by Suppressing MAPK/NF- κ B and A2aR Signaling in LPS-Induced THP-1 Macrophages.	31360100
RK03720	Rat High Mobility Group Protein 1 ELISA Kit (HMG1)	Scientific reports	2019	Environmental microcystin targets the microbiome and increases the risk of intestinal inflammatory pathology via NOX2 in underlying murine model of Nonalcoholic Fatty Liver Disease.	31217465

Cooperative development of immunodiagnostic antibody pairs and ELISA Kit

With the wide application of immune diagnosis technology, antibody drugs have made significant progress in the treatment of a variety of diseases (cancer, inflammation, autoimmune diseases, etc.), and the detection of diagnostic targets, immunogenicity of biological drugs, pharmacokinetics, host cell protein residues and other immunological tests are particularly important.



SERVICE PROCESS



SERVICE CASE

>> **Case 1 Cooperative development of GPCR antibody pairs and ELISA Kit**

G protein coupled receptors (GPCRs) are a large class of membrane protein receptors. GPCR is the largest family of membrane receptor proteins in human and plays an important role in cell signal transduction. GPCR is closely related to human diseases. At present, more than 40% of the drugs on the market take GPCR as the target. Because GPCR contains multiple transmembrane domains, it is very difficult to obtain stable and complete GPCR protein, so its research is very challenging and important. In this project, a variety of extracellular segments are used as immunogens, and rabbit polyclonal antibody and mouse monoclonal antibody projects are carried out at the same time. Matched antibody pairs are screened, which has laid a solid foundation for clinical diagnosis. Mrgprx2 is a key receptor of drug allergic reaction and a member of GPCR family. The developed ELISA kit has high sensitivity and specificity, and is suitable for the detection of blood samples..

Concomitant diagnostic application:

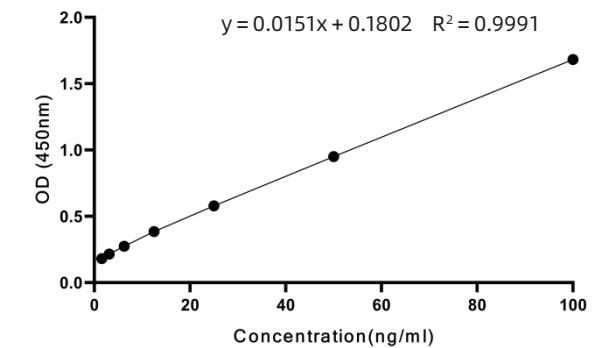
The key receptor of drug allergic reaction. A member of the GPCR family.

Demand: Mrgprx2 detection for concomitant diagnosis

Antigen: Multiple recombinant proteins and peptides

Validation: recombinant proteins and peptides

Screening: ELISA matching, rabbit multi antibody and mouse monoclonal antibody double antibody sandwich



>> **Case 2 Cooperative development of AFP antibody pairs and ELISA Kit**

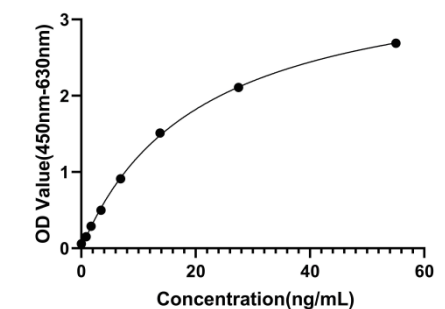
Alpha fetoprotein (AFP) is one of the most commonly used tumor markers in clinic. More than 60% of the patients with primary liver cancer were accompanied by different degrees of AFP elevation. Alpha fetoprotein is closely related to the occurrence and development of liver cancer and a variety of tumors. It can show a high concentration in a variety of tumors and can be used as a positive detection index for a variety of tumors. At present, it is mainly used as a serum marker of primary liver cancer in clinic for the diagnosis and efficacy monitoring of primary liver cancer. The developed AFP mouse monoclonal antibody has strong specificity, good stability and high sensitivity, and the detection limit is as low as 0.215ng/ml.

Demand: AFP diagnostic antibody pair development

Antigen: recombinant proteins

Validation: recombinant proteins

Screening: ELISA matching, mouse monoclonal antibody and mouse monoclonal antibody double antibody sandwich



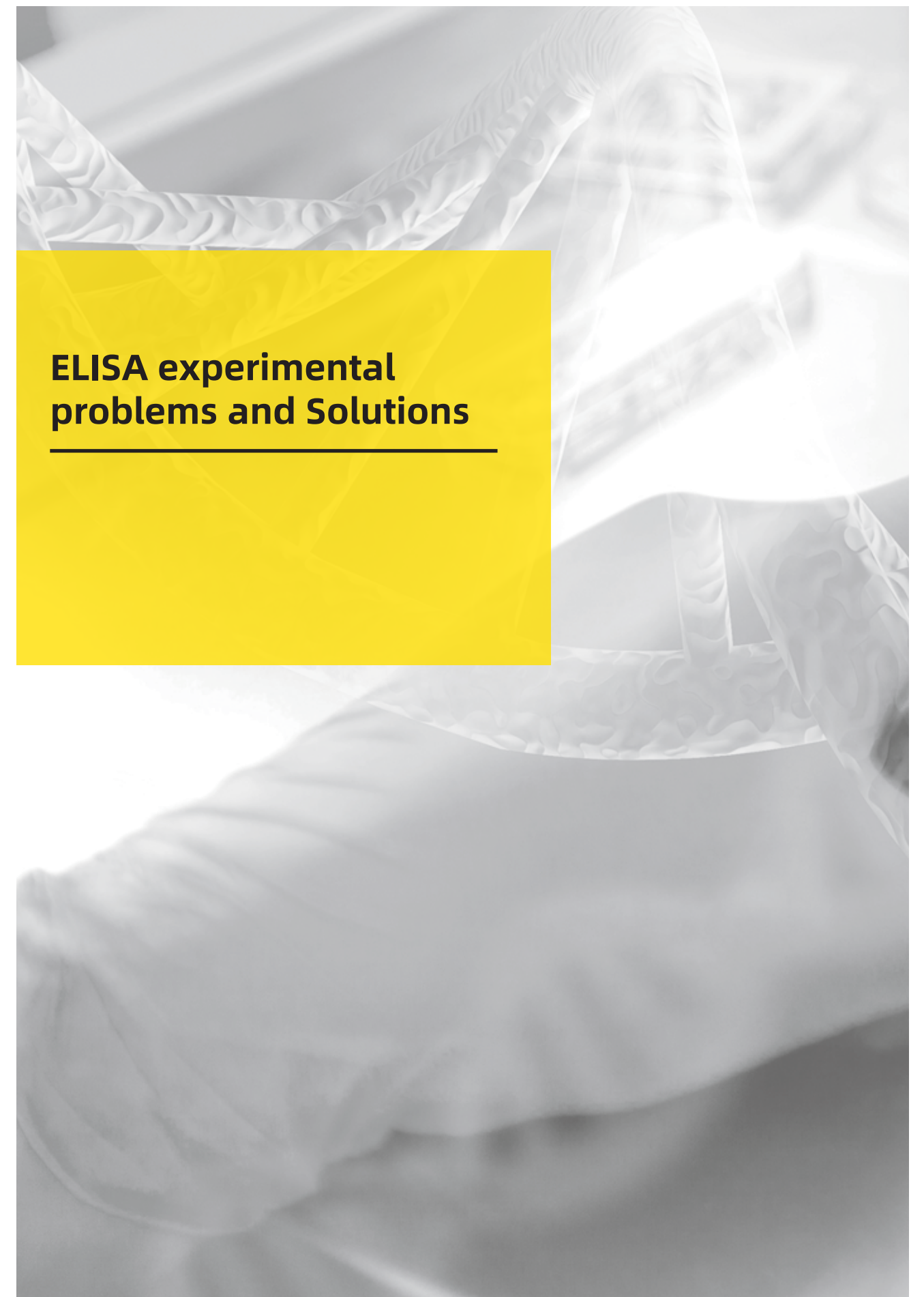
PRODUCTS & CUSTOM SERVICES FOR ELISA KITS



SERVICE TIMELINE

Service	Service description	Timeline (week)	Remarks
Immunogen preparation	Peptide synthesis, prokaryotic / eukaryotic system expression protein	6-8	Select appropriate immunization according to project needs
Animal immunity	Take the animal serum before immunization for background detection, and select the animal with low detection value for immunization. Then carry out antiserum ELISA test, provide the data to the customer, and provide the antiserum to the customer for testing. The customer selects the animals with good test results for subsequent monoclonal antibody screening	8-10	Immunize mice or rabbits according to project requirements
Screening of mouse / rabbit monoclonal antibodies	The positive clones of specific recognition antigens were screened initially, and the positive clones of endogenous samples were further screened	11-20	Screening based on customer needs
Antibody pairing test	ELISA matching test and standard curve establishment, Then Send successfully matched antibody pairs to customers for trial use	2-3	Ensure that at least one pair of antibodies can meet the requirements
Kit development	Reagent kit reaction conditions and parameter optimization, standard curve determination, stability evaluation, etc	3-4	
Kit validation	Sensitivity determination, intra batch difference and inter batch difference determination, addition recovery determination, sample determination, etc	3-4	
Kit production	Production of finished Kit (5)	2-3	If more kits are needed, it will be discussed separately
Total		35-52	Floating according to customer demand

ELISA experimental problems and Solutions



ELISA EXPERIMENT PROBLEMS AND SOLUTIONS

Classification	Problems	Solutions
Poor repeatability	Uneven sample amount	Strictly control the sample amount to ensure that the difference is less than 5%.
	Sample has impurities or sediment	Please centrifuge the sample before use.
	Reagent preparation is not fully mixed	Fully mix the reagent before adding the sample.
	Sample is not centrifuged sufficiently before adding sample	To ensure the test repeatability of samples, appropriate samples shall be used as required, and samples shall be processed.
	Cut the coated surface when adding sample	When adding samples, it is necessary to add samples in the air to avoid scratching the coating surface and causing the loss of antibodies
	Uneven incubation temperature	Uneven incubation temperature leads to inconsistent reaction process. Please make sure that the temperature of the incubator has been calibration.
	Improper reagent storage	Reagents such as antiody coated plate shall be stored as required. Use up within 1 month after unpacking.
	edge effect	High precision is required for experiment, please use wet box for incubation. Avoid stacking reaction plates when multiple plates are tested at the same time.
Standard protein reacts well, but no signal is detected in the sample	Low abundance of target protein in samples	Control test with positive control sample.
	Sample matrix effect	Dilute the sample at least once for detection, and determine whether the matrix effect is eliminated by recovery test. Select Calculation results of dilution ratio with gradient decrease after sample dilution.
Standard protein reaction is good, but sample detection signal is too high	Sample target protein quantity is too high	Dilute the sample with diluent and repeat the test. Select the dilution times with gradient decrease after sample dilution Number calculation results.
	Nonspecific reactive enzymes present in the sample	Confirm whether the sample has special conditions before use, and handle the sample.
Reading value too low	Reading wavelength selection error	Select correct primary and secondary wavelength readings.
	Color development time is too short	The best color developing time is 15-25min, no more than 30min.
	Improper reagent storage	Reagents such as enzyme label plate shall be stored as required. After opening the bag, be sure to seal and store it and put desiccant in it to avoid Moisture. Use up within 1 month after unpacking.
	Reagent preparation error	Check whether there is reagent preparation error.
	Reagent preparation concentration error	Check whether the reagent has no signal value because the concentration of standard protein, antibody or sa-hrp is too low
	The standard is stored too long after dissolution or repeatedly frozen and thawed	Avoid repeated use of dissolved standards, and use new standards for each experiment.
	Reagent is not mixed well before use	Mix the reagent before use.
	The washing process is too intense	Reduce the pressure of the washing system.
	No reading in time after adding termination liquid	Read within 5min after adding termination solution.
Enzyme inhibitor in sample	For example, sodium azide will inhibit HRP activity.	
Skip hole	Improper operation in plate washing	Improper operation in plate washing causes cross contamination between holes.
	Sampling error	Incorrect sample adding results in unexpected color rendering.
	Improper incubation temperature	Improper incubation temperature leads to unexpected reaction process.

Classification	Problems	Solutions
High background	Insufficient washing	Check whether the plate washing is carried out as required.
		If the plate washer is used, please fully flush the pipeline and ensure that each hole is completely flushed. Concentrated washing liquid is used when it is crystallized, resulting in insufficient washing.
	Excessive use of streptavidin HRP	Check whether SA-HRP is prepared according to the required concentration.
	Whether the incubation time is too long	Check whether the sample amount is added as required.
	Cross contamination of samples	Pay attention to the operation that may cause cross hole reaction of the sample during the experiment.
	Reagent contamination	Check whether the reagent has the possibility of being contaminated.
		Use freshly prepared reagents.
	When reading, there are bubbles in the plate hole	Avoid bubbles in sample adding, which may cause reading error.
The bottom of the plate is not wiped when reading	Wipe the bottom of the board before reading to avoid high values caused by fingerprints or water stains on the bottom of the board.	
NO signal	Reagent use sequence error	Check whether there is any problem with the reagent use sequence and repeat the test.
	Reagent preparation error	Check whether there is reagent preparation error.
	Reagent preparation concentration error	Check whether the reagent has no signal value because the concentration of standard protein, antibody or SA-HRP is too low.
	The standard is stored too long after dissolution or repeatedly frozen and thawed	Avoid repeated use of dissolved standards, and use new standards for each experiment.
	Reagent contamination	Check whether the reagent has the possibility of being contaminated.
	Improper reagent storage	Use freshly prepared reagents. Reagents such as antiody coated plate shall be stored as required. Use up within 1 month after unpacking.
Too strong signal	Insufficient plate washing	Insufficient plate washing resulted in SA-HRP residue. Check whether the plate washing is carried out as required. If the plate washer is used, please fully flush the pipeline and ensure that each hole is completely flushed.
	TMB substrate deterioration	Check if TMB substrate solution turns blue. Use new TMB substrate solution.
		Avoid using metal substances to contact the substrate to cause deterioration and failure
	Excessive use of streptavidin HRP	Check whether SA-HRP is prepared according to the required concentration
		Check whether the sample amount is added as required
	Plate sealers reused	Use a fresh new sealer in each step of experiments
	Reagent contamination	Check whether the reagent has the possibility of being contaminated
Use freshly prepared reagents		