

# ELK(Wuhan)Biotechnology CO.,Ltd.

Suitable for company promotion, product introduction, development plan, business financing, etc. product introduction, development plan, business financing, etc.









# CONTANTS

- 1 Company Profile
- 2 Company culture

- 3 Product introduction
- 4 Planning and the future



# **Company culture**





## **ELK (Wuhan) Biotechnology CO.,Ltd**

ELK Biotechnology is located in Optics Valley Bio-city, a national bioindustry base in Wuhan. Founded in 2013, ELK Biotechnology is a high-tech biological enterprise specializing in life science and immune research. We have a laboratory of 3,000 square meters, with independent cell culture room and SPF animal room, specializing in the introduction and research and development of morphological pathology, cell biology, molecular biology, protein immunology, and model animal related products. Since the establishment of the company, team members have participated in a number of medical biology research projects and the National Natural Science Foundation of China. And establish cooperative relations with many enterprises and scientific research institutions across the country to provide the best quality and most efficient services and products for every scientific researcher.



# Reagent manufacturers with R&D and production capabilities

ELK Biotechnology specialized in the production of ELISA kits, antibodies and molecular biology reagents (DNA, RNA extraction kits and PCR-related reagents). Has about 8500+ ELISA kits, 11000+ antibodies, 60+ molecular biology reagents and cell experiment related products.





## Reliable supply

The core raw materials of the kit, finished antibody pairs, and standard recombinant proteins are all from imported first-line brands



## High quality and stability

Each batch of kits goes through layers of QC quality inspection to ensure that the kits received by customers have the best sensitivity and specificity



## Rapid development

Relying on the company s complete R D platform, through the integration of upstream and downstream supply chains, it currently provides more than 20,000 products related to immunology and molecular biology.



# **Labtoratory show**

## **ELK Biotechnology**





















## Immunology Platform

Basic immunology research and clinical application model research to systematically expound the molecular regulation mechanism of immune response. The institute will mainly carry out a series of researches on infection immunity and inflammation, autoimmune disease and inflammation, and the remodeling and regulation of inflammatory tumor microenvironment.

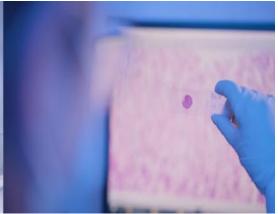


## Molecular Biology Platform

At the microscopic and molecular levels of biology, we aim to understand the interactions between different systems in the cell, including the interactions between DNA, RNA, and proteins, and how these interactions are regulated.











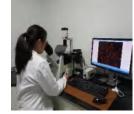
Pathology Platform



> Animal model platform



Cell Biology Platform





















## **Molecular Biology**

- Nucleic acid extraction
- RT-PCR
- Molecular cloning
- SNP typing
- RNA interference
- Molecular hybridi ation
- DNA methylation
- RACE
- sgRNA design
- Crispr/Cas9



## Cell Biology

- Cell culture
- Flow cytometry
- Cell proliferation activity
- Transwell invation migration
- Adhesion assay
- Cell transfection
- MTT assay
- Colony formation assay
- Dual-luciferase assay
- Retroviral packing assay
- Lentiviral packing assay



## Immunology

- Co-IP
- ELISA assay
- EMSA assay
- WB assay
- Immunohistochemistry
- Immunofluorescence



## Pathology

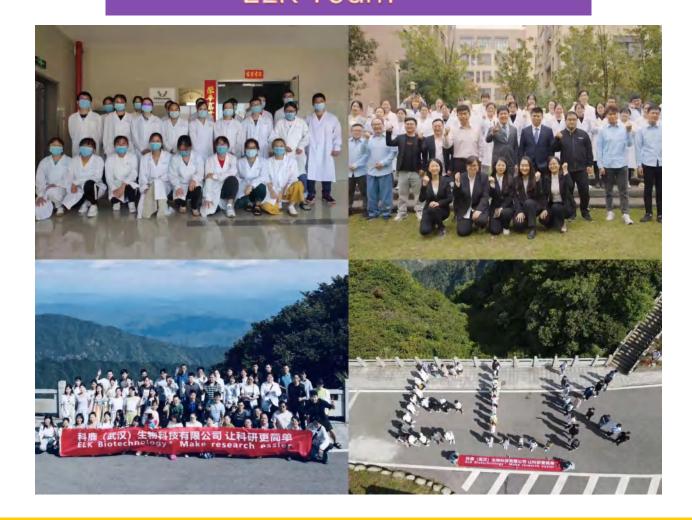
- Tissue embedding
- Paraffin section
- Photograph
- Pathologic analysis
- he dyeing
- Other special dyeing
- Ihc
- Immunofluorescence (IF)
- Tunel assay
- Transmission electron microscope



# **Team introduction**

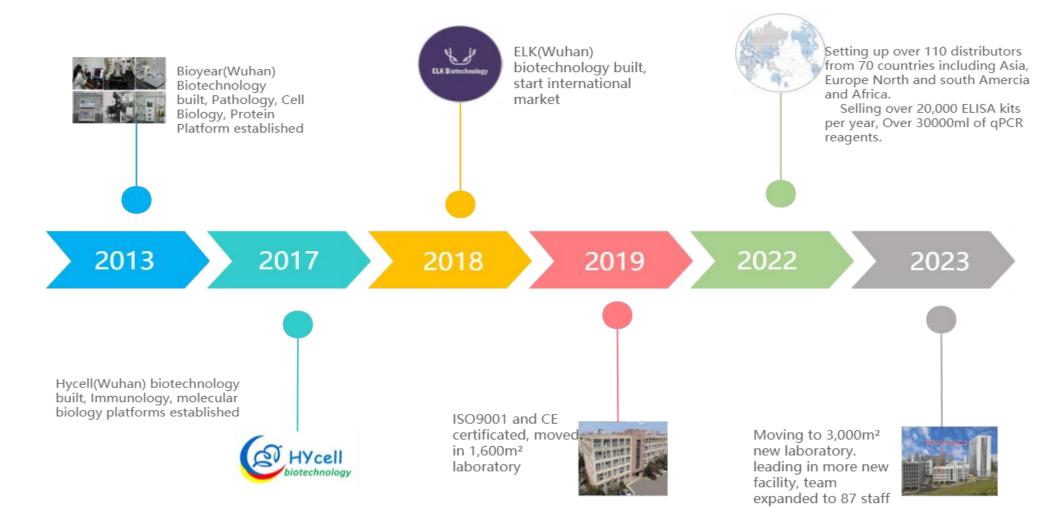
- Has a team of 57
  technicians, 6 PDH in
  biology, 18 staff of sales
  and marketing and 6 staff
  of Administration and
  finance
- This is a dynamic, young and creative team.
- The average age of ELK team is 35-40 years old, and they all have 8-10 years of experience in the production and development of biological protein-related products

## **ELK Team**





## **Development path**





# Why choose ELK

9 years experienced in life science

Wide range products, more than 20,000 products

Fast delivery with 3 working days upon order confirmation



3,000 square meters
laboratories with state-ofthe-art facilities

Excellent quality and competitive prices with free replacement

Excellent service, reply within 24 hours for all inquires and after-sale service



# **Products**





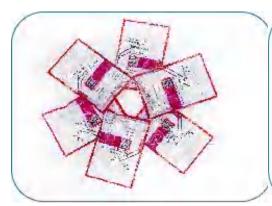
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## **ELISA Kit**

8500+ ELISA kits with22species:hum an,rat,mouse,canin e,cattle,chicken,do g,goat,hamster,hor se,pig,rabbit,sheep PCR, qPCR, RT-PCR

40 kinds of RT-PCR,
PCR, qPCR
reagents/kits with
many high "IF"
published articles

# DNA/RNA Extraction kit

21 kinds of
DNA/RNA extraction
kits with
Blood/Cell/Tissue/G
enomic/plant/stool/
soil/Viral/Bacterial
samples

## Antibody

10000+ Antibody with wide applications

## Protein

New products will added in 2023

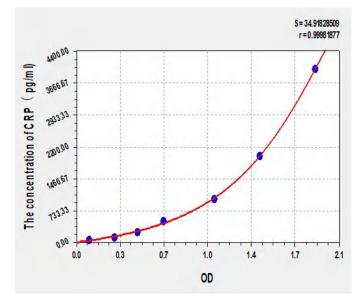






## human CRP(C Reactive Protein) ELISA Kit

CRP ELISA Kit				
Concentration(pg/ mL)	OD-1	OD-2	Average	OD-blank
4000	1.989	1.975	1.982	1.904
2000	1.551	1.527	1.539	1.461
1000	1.169	1.187	1.178	1.100
500	0.783	0.765	0.774	0.696
250	0.577	0.556	0.567	0.488
125	0.376	0.391	0.384	0.305
62.5	0.189	0.165	0.177	0.099
0	0.075	0.082	0.079	0.000





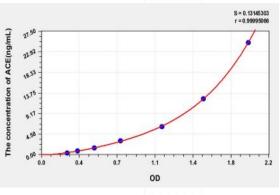
## Sandwich

the antibody coated in the wells of the plate

# Antigen detection by double antibody sandwich method

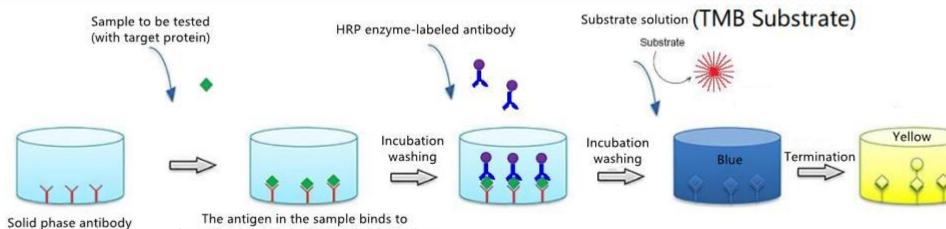






- ①Connect the specific antibody to the solid-phase carrier to form a solid-phase antibody: wash to remove unbound antibodies and impurities.
- ②Add the test sample: make it contact and react with the solid-phase antibody for a period of time, and let the antigen in the sample combine with the antibody on the solid-phase carrier to form a solid-phase antigen complex. Washing removes other unbound material.
- ③Add enzyme-labeled antibody: combine the antigen on the solid-phase immune complex with the enzyme-labeled antibody. Thoroughly wash unbound enzyme-labeled antibody. At this time, the amount of the enzyme carried on the solid-phase carrier is positively correlated with the amount of the tested substance in the sample.
- ④ Substrate addition: The enzyme in the sandwich complex catalyzes the substrate to become a colored product. The characterization or quantification of the antigen is carried out according to the degree of color reaction.

According to the same principle, the macromolecular antigens are prepared as solid-phase antigens and enzymelabeled antigen conjugates, respectively, and the double-antigen sandwich method can be used to measure the antibodies in the specimen.





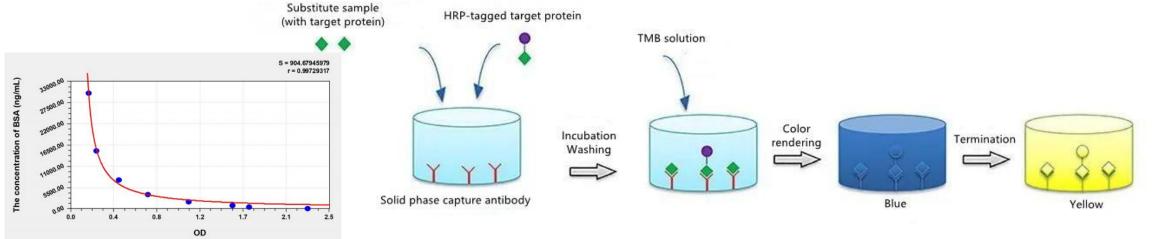
# **Competitive method**



The competition method (Figure 2-1) can be used to measure antigens as well as antibodies. Taking the test antigen as an example, the test antigen and the enzyme-labeled antigen compete for binding with the solid phase antibody, so the amount of the enzyme-labeled antigen bound to the solid phase is inversely proportional to the amount of the test antigen. The operation steps are as follows:

- ①Connect the specific antibody to the solid-phase carrier to form a solid-phase antibody, washing.
- ②Add the mixed solution of the test sample and a certain amount of enzyme-labeled antigen to the test tube to react with the solid-phase antibody. If there is no antigen in the tested sample, the enzyme-labeled antigen can be successfully combined with the solid phase antibody. If the tested sample contains antigen, the enzyme-labeled antigen will bind to the solid-phase antibody at the same opportunity as the enzyme-labeled antigen, which competitively takes up the opportunity for the enzyme-labeled antigen to bind to the solid-phase carrier amount decreased. Only the enzyme-labeled antigen is added to the reference tube. After incubation, the binding of the enzyme-labeled antigen to the solid-phase antibody can reach the most sufficient amount. washing.
- ③Color development by adding substrate: The color of the reference tube is the darkest due to the most bound enzyme-labeled antigen. The difference between the color depth of the reference tube and the color depth of the test tube represents the amount of antigen in the tested sample. The lighter the color of the tube to be tested, the more antigen content in the sample.







## **ELISA KIT**

# Wide species

Species	Qty	Species	Qty	Species	Qty
Human	3859	Chicken	156	Avian	6
Mouse	1685	Horse	90	Canine	1
Rat	1552	Sheep	53	Cat	3
Pig	248	Guinea pig	38	Duck	2
Cattle	240	Simian	41	Hamste r	13
General	176	Goat	43	Pigeon	1
Dog	153	Zabrafish	40	Spinach	1
Rabbit	147	Plant	6		

# Research area

Cytokines&Growth Factor	Neurosciences
Autoimmunity	urinary system
Immunomodulator	Enzymes&kinase
CD&Adhesion molecule	hormone
Signal transduction	Glubulins
Canser research	Hypersensitivity
Hematology	Transplantation
Digestive system	Cardiovascular disease
Matabolism	Respiratory system
Innate Immunity	Endocrinology
Apoptosis	Reproductive tract disease

# **Advantage**



Good performance



High Precision
Both INer and intra CV
are <9%



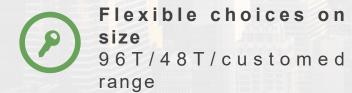
High Sensitivity
Pg level



**Good specificity**Cross-reactivity < 5%



Recovery Rate 85%-115%



## Strict QC

The unique coating system reduces the damage of the coating protein, the special Biotinylated-ConJugate and Streptavidin-hrp, while reducing data fluctuations, more effectively prolong the effective use time of the kit

The core raw materials are mainly self-developed and produced. From raw materials to semi-finished products to finished products, the gap between kit batches is strictly controlled through three parts of quality inspection (standard purity, antibody specificity, coefficient of variation, recovery rate, stability test)

♠Precise freeZe-drying curve control, automatic pipetting station, maximiNe the reduction of production errors, eliminate static interference, strictly ensure the stability of the production environment





### Rat TNFa(Tumor Necrosis Factor Alpha) EL BEIDE

| | Specification | E Price: 48.7 \$265.00

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#### Rat IL6(Interloukin 6) EUSA Kit

BUILDING.

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\$176.00

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## **ELISA PUBLICATION**





CONTROL REPORTS

Scientific Reports

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Food and Chemical Toxicolog















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Historia (#.180)

#### Overview

Publications



BIOMEDICINE & PHARMACOTHERAPY

BIOMEDICINE & PHARMACOTHERAPY

Frontiers in Molecular Neuroscience

Cognitive Impairment in Resitoy Suppressing...

If Date: 2001-11-30 // IF: 5-639

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Food and Chemical Toxicology

MACMSA apropages chapaic cooper-induced hepatic and Immunological changes in Sprague Dealey rate:

M Date: 2021-10-20 - il 17: 4:00



carrie include the expression of \$1.15.15.6 and TNF-g. induced by OCD/R through the PET/NRP1s pathway in

69 Date: 2021-10-06 \_\_\_\_ IF: 3.503



Scientific Reports

Human 3-defends 3 reduces exceptive exceptings for intestral apithelial cells and in experimental secretaing.

H Date 2021 12-26 J IF: 4.179



Brain Research Sulletin Nuclear receptor TDX may be through requisiting the

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ncRNA ACTOROGY 2 alleviates centinal inchemic



Alpha Lippin And Protects Co-Diposure to Lead and Ziro.

@ Date: 2001-07-06 | | IF: 5.81

Frontiers in Pharmacology

Didde Nanopertices Induced Neuro, Immuno and Male.





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E A	EntiLink™ 1st Strand cDNA Synthesis Kit (+gDNA Eraser)	EQ003	Multi-functional carboxymethyl chitin-based nanoparticles for modulation of tumor-associated macrophage polarity	10.723
FI // Dietachuslam	Total RNA Extraction	EP013		
Citations	EntiLink™ 1st Strand cDNA Synthesis Kit (+gDNA Eraser)	EQ003	MiR-144-5p, an exosomal miRNA from bone marrow-derived macrophage in type 2 diabetes, impairs bone fracture healing via targeting Smad1	10.435
Citations	PCR SuperMix	EQ001		
Total literature: 2000+ Total IF: 5000+	Human DSG1 ELISA Human DSG3 ELISA Human EVPL ELISA Human COL17 ELISA Human COL7 ELISA Human LAMC1 ELISA	ELK1963 ELK4019 ELK2839 ELK2988 ELK3163 ELK3868	Immunological methods for the diagnosis of oral mucosal diseases	11.113
Total IF: 5000+	Rat IL10 ELISA	ELK1144	Berberin sustained-release nanoparticles were enriched in infarcted rat myocardium and resolved inflammation	9.429
	PCR SuperMix EntiLink™ 1st Strand cDNA Synthesis Kit (+gDNA Eraser)	EQ001 EQ003	PEX5R/Trip8b-HCN2 channel regulating neuroinflammation involved in perioperative neurocognitive disorders	9.584
	Total RNA Extraction			
• •	EntiLink™ 1st Strand cDNA Synthesis Kit (+gDNA Eraser)	EP013 EQ003	MiR-21 regulating PVT1/PTEN/IL-17 axis towards the treatment of infectious diabetic wound healing by modified GO-derived biomaterial in mouse models	9.429
• •	BCA Protein concentration determination kit	BC016		
• •	Reagent Kit for Single Cell Gel Electrophresis Assay	CA001	MYC-targeted WDR4 promotes proliferation, metastasis, and sorafenib resistance by inducing CCNB1 translation in hepatocellular carcinoma	9.685
• •	Rat IL1b ELISA Rat IL6 ELISA	ELK1272 ELK1158 ELK1396 ELK1503	Regulation of the p75 neurotrophin receptor attenuates neuroinflammation and stimulates hippocampal neurogenesis in experimental Streptococcus pneumoniae meningitis	9.587

	Items	Cat. No	Citations	IF
ELK Biotechnology	PCR SuperMix Rat IL1b ELISA Rat IL6 ELISA Rat TNFa ELISA	EQ001 ELK1272 ELK1158 ELK1396	Sestrin2 overexpression attenuates osteoarthritis pain via induction of AMPK/PGC-1 $\alpha$ -mediated mitochondrial biogenesis and suppression of neuroinflammation	19.227
Citations	Rat IL6 ELISA Rat IFNg ELISA Rat IL-12p40 ELISA	ELK1158 ELK1133 ELK2509	Minimally invasive bioprinting for in situ liver regeneration	16.8
Total literature: 2000+	Rat Ntn1 ELISA Rat IL1b ELISA Rat TNFa ELISA Rat IL6 ELISA	ELK5693 ELK1272 ELK1396 ELK1158	Engineered exosomes enriched in netrin-1 modRNA promote axonal growth in spinal cord injury by attenuating inflammation and pyroptosis	15.863
Total IF: 5000+	Total RNA Extraction Mouse IL1b ELISA Mouse IL6 ELISA Mouse TNFa ELISA	EP013 ELK1271 ELK1157 ELK1395	Cell-Free Extracts from Human Fat Tissue with a Hyaluronan-Based Hydrogel Attenuate Inflammation in a Spinal Cord Injury Model through M2 Microglia/Microphage Polarization	15.153
	Pig PF4 ELISA	ELK5910	Mesenchymal stromal cells mitigate liver damage after extended resection in the pig by modulating thrombospondin-1/TGF- $\beta$	14.404
	LPC ELISA Mouse LPS ELISA Human TNFa ELISA Human IL1b ELISA	ELK8145 ELK8727 ELK1190 ELK1270	Gut microbiota-mediated lysophosphatidylcholine generation promotes colitis in intestinal epithelium-specific Fut2 deficiency	12.771
• •	SOD assay kit MDA assay kit AChE assay kit Zebrafish TNFa ELISA	BC009 BC021 BC044 ELK8512	Piperine loaded metal organic frameworks reverse doxorubicin induced chemobrain in adult zebrafish	11.467
	PCR SuperMix Reverse Transcriptase Total RNA Extraction	EQ001 EQ002 EP013	Prolonged anesthesia induces neuroinflammation and complement-mediated microglial synaptic elimination involved in neurocognitive dysfunction and anxiety-like behaviors	11.15
• •	Rat LIF ELISA	ELK5072	Leukemia inhibitory factor is a therapeutic target for renal interstitial fibrosis	11.205
• •	Blood/Cell/Tissue Genomic DNA Extraction Kit	EP007	ACSS3 represses prostate cancer progression through downregulating lipid droplet-associated protein PLIN3	11.556





## **ELISA Kit**





















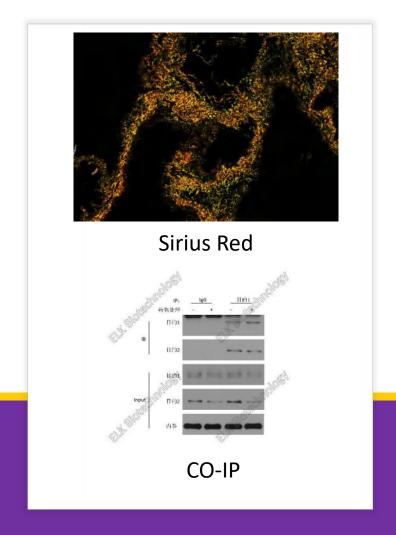


Mouse IL-6	Human IL-8	Human IL-6	Human HMGB-1	HIS(Histamine)	Human IL-2
Mouse TNF-α	Pg(Progesterone)	Mouse IL-10	Human IL-10	Human IFN-γ	E2(Estradiol)
Mouse IL-1β	Human Aβ1-42	TGF-β1	VMA(Vanillylmandelic Acid)	NA/NE(Noradrenaline/Norepinep hrine)	Mouse FSH
Human TNF-α	Human IL-18	ST/5-HT	Rat IL-10	cAMP	Mouse IFN-β
Rat TNF-α	Mouse IL-18	T(Testosterone)	Human VEGF-A	DA(Dopamine) ELISA Kit	Human IL-17A
Rat IL-6	Mouse MAU	Mouse INS(Insulin)	MDA(Malondialdehyde)	Human Aβ1-40	CORT(Corticosterone)
Human IL-1β	Mouse IL-4	PGE2(Prostaglandin E2)	Rat FSH	Rat LH(Luteinizing Hormone)	Rat IL-18(Interleukin 18)
Rat IL-1β	Mouse HMGB-1	Mouse IFN-γ	8-OHdG	Mouse VEGF-A	LPS(Lipopolysaccharide)

# **Antibody**

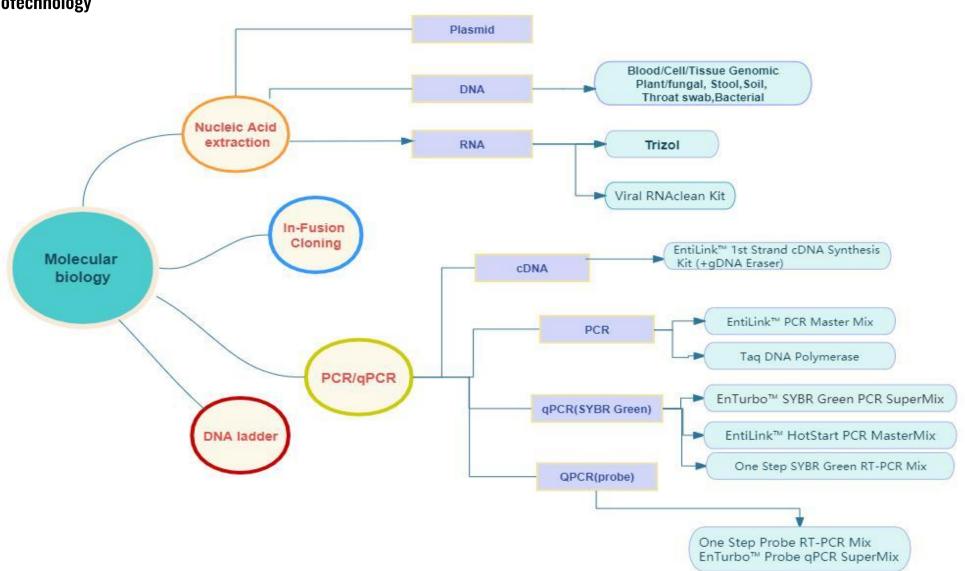


Category	Qty
primary antibody	11000+
Monoclonal antibody	500+
Secondary Antibody	10+





# **Molecular Biology**





# Nucleic acid purification and extraction kits

**EP001 Plasmid Miniprep Kit** 

**EP002 Plasmid Prepare Kit** 

**EP004 EndoFree Plasmid Miniprep Kit** 

**EP005 PCR Circle Purification Kit** 

**EP006 Gel DNA Purification Kit** 

EP007 Blood/Cell/Tissue Genomic DNA Extraction Kit

**EP008 Whole Blood DNA MiniPrep Kit** 

**EP009 Amp Blood Clot DNA Extraction Kit** 

**EP010 DNAsecure Plant Kit** 

**EP011 Plant Genomic DNA Extraction KIT** 

**EP012 Stool Genome DNA Extraction KIT** 

**EP014 Total RNA Extraction Kit** 

**EP013 TRIpure Total RNA Extraction Reagent** 

**EP015 Endo-Low Plasmid Prepare Kit** 

**EP017 Viral RNAclean Kit** 

**EP018 Plant Total RNA Extraction Kit** 

**EP003 Max Plasmid Purification Kit** 

**EP021 Bacterial DNA Extraction kit** 



## qPCR/RT-PCR reagents

EQ001 EnTurbo™ SYBR Green PCR SuperMix

EQ013 EnTurbo™ SYBR Green PCR SuperMix(High ROX Premixed)

EQ014 EnTurbo™ SYBR Green PCR SuperMix(Low ROX Premixed)

**EQ015 One Step Probe RT-PCR Mix** 

**EQ016 GoldView** 

EQ017 EnTurbo™ probe qPCR SuperMix

EQ003 EntiLink™ 1st Strand cDNA Synthesis Kit (+gDNA Eraser)

**EQ002 EntiLink™ Reverse Transcriptase** 

**EQ010 RNase Inhibitor** 

EQ011 dNTP Mix (PCR Grade) 10 mM each

EQ004 EntiLink™ PCR Master Mix

**EQ005 Taq DNA Polymerase** 

**EQ006 Hot start Taq DNA Polymerase** 

**EQ007 One Step SYBR Green RT-PCR Mix** 

**EQ008 Pfu DNA Polymerase** 

**EQ009 KOD DNA Polymerase** 

EQ022 Human Telomere Length Quantification qPCR Assay Kit(Relative)

**EQ020 RNA stabilization Solution** 

**EQ021 20×SYBR Green Dye** 

**EQ023 Proteinase K** 







# **Molecular biology: Star Products**

## cDNA

EQ003 EntiLink™ 1st Strand cDNA

Synthesis Kit (+gDNA Eraser)



### RNA extraction

EP013 TRIpure Total RNA Extraction Reagent(Trizol)

## PCR/qPCR

EQ001 EnTurbo™ SYBR Green PCR SuperMix EQ004 EntiLink™ PCR Master Mix









- > We have established distributors from **70** countries
- In Asia, we sell more than **30,000** mL of qPCR Mix and more than **20,000** ELISA Kits and more than **1,000** antibodies each year.
- > We cover **15** European countries in Europe
- > Have more than **18** distributors in Africa
- ➤ In 2020, we entered the North and South American markets and we have more than **20** inquiries every week



# **Marketing materials**

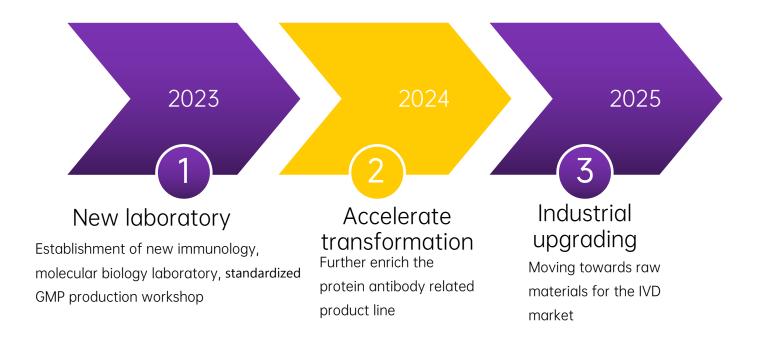








# **Planning and future**



At the same time of development, we will always implement the concept of environmental protection in the production process, and always take scientific development and environmental protection as the company's mission. In line with the belief of providing scientists with the most cutting-edge and cost-effective research tools, we will continue to devote ourselves to providing high-quality scientific research products for scientific researchers and contributing to the development of human life sciences.



# **ELK Biotechnology**

# Thanks for watching

Suitable for company promotion, product introduction, development plan, business financing, etc. product introduction, development plan, business financing, etc.



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