

# ABOUT US

LinsLink Bio-Tech Co., LTD manufactures and distributes high-quality and innovative products and services for immunoassay applications, including ultra-concentrated monodisperse gold nanoparticles, blockers, substrates, antibodies and other ancillary reagents. We set the standard for quality that makes it easy for IVD customers to achieve precise and reliable results. As a trusted partner, we're able to support you through all stages of assay commercialization journey.

Our 3,000 square meters facility is ISO9001:2015 certified, serving as state-of-the-art R&D and manufacturing site with expertise in nanotechnology and protein engineering. Our dedicated team of experts oversees every aspect of our manufacturing process to ensure that we provide our customers with products of exceptional quality and value.

## Our Mission

Empower diagnostic manufacturers through high-quality and innovative products and services.

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## **Microspheres**

## **Ultra-concentrated Gold Nanoparticles**

Exceptional quality gold nanoparticles and significant advantages for lateral flow assay development and manufacturing processes.

### **Product Range**

Up to OD100, ultra-concentrated monodisperse gold nanoparticles generate best in class performance for lateral flow assays. We offer a range of particle sizes from 20nm to 80nm to meet your requirements for different applications.

Product Code	Nominal Diameter	λmax	Pack Size*	Batch Size**
LS-TCCG-20	20nm	515~519nm	1ml, 10ml, 25ml, 100ml, 500ml	8L
LS-TCCG-30	30nm	520~522nm	1ml, 10ml, 25ml, 100ml, 500ml	8L
LS-TCCG-40	40nm	523~526nm	1ml, 10ml, 25ml, 100ml, 500ml	12L
LS-TCCG-50	50nm	528~532nm	1ml, 10ml, 25ml, 100ml, 500ml	12L
LS-TCCG-60	60nm	534~539nm	1ml, 10ml, 25ml, 100ml, 500ml	12L
LS-TCCG-70	70nm	540~544nm	1ml, 10ml, 25ml, 100ml, 500ml	12L
LS-TCCG-80	80nm	545~548nm	1ml, 10ml, 25ml, 100ml, 500ml	12L

<sup>\*</sup> Custom pack size is available upon the request of customers.

Our unique ultra-concentrated gold nanoparticles present great advantages over traditional gold products. These advantages include:

- Monodisperse nature with spherical and uniform shape to ensure lot-to-lot consistency and assay specificity.
- Gold conjugation at 40 OD to reduce antibody reagent cost by up to 80%.
- Simplify gold conjugation process to save production time and equipment costs.

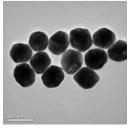
### Comparison of gold conjugation using ultra-concentrated gold versus conventional gold.

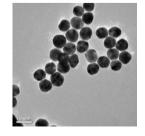
## Assay: SARS-Cov-2 Production Batch: 1M tests

Gold Nanoparticles	Conjugation Volume	Centrifugation Time	Antibody
Ultra-concentrated gold (100 OD)	1.7 L	1-2 h	100 mg~250 mg
Conventional gold (1 OD)	68 L	2 d	>350 mg

#### **Key Features**

**Shape,** Spherical and uniform in size with a CV< 8%. **Stability and storage,** 12 months shelf life at 2-8°C.





TEM images of LS-TCCG-60

TEM images of LS-TCCG-40

<sup>\*\* 1</sup>L could supply the production of 2 million test strips.



## **Gold Shell Microspheres**

Despite the wide use of colloidal gold as an effective carrier in lateral flow tests, its sensitivity in certain assays remains limited. Gold shell microspheres are characterized by a core-shell structure with particle sizes ranging from 280nm to 320nm. Their unique surface properties and large particle size allow R&D scientist to develop rapid immunoassays with far greater sensitivity.

### **Product Range**

Product Code	Color	Nominal Diameter	Concentration	Surface	Pack Size*
LS-SG-260r	Red	290nm	20 OD	Plain	5ml, 50ml, 200ml, 500ml
LS-SG-260p	Purple	300nm	20 OD	Plain	5ml, 50ml, 200ml, 500ml
LS-SG-260d	Black	310nm	20 OD	Plain	5ml, 50ml, 200ml, 500ml
Starter Pack	The kit contains 5ml each of red, purple and black gold shell microspheres to allow your R&D scientists to determine the appropriate product for a specific application.				

<sup>\*</sup> Custom pack size is available upon the request of customers.

Our gold shell microspheres offer several advantages, such as:

- Higher sensitivity than traditional gold nanoparticles.
- One step antibody coupling procedure.
- Easy centrifugation steps (500g for 5 min) to save production time and equipment costs.

Stability and storage, 18 months shelf life at 2-8°C.



## **Supplemental Reagents**

## **Dispersing Agents**

This product is supplied as a 10x solution containing dispersing agents. It can be added to sample dilution buffer or sample pad to reduce endogenous interference caused by lipoproteins or fibrin in blood samples. This, in turn, improves the mobility of microspheres through the lateral flow membrane.

Product Code	Appearance	Pack Size	
LS-EX-D1	Clear liquid	50ml, 500ml	

## **Chemical Reagents**

## **Chemiluminescence Immunoassay**

## **Acridine Sulfonamide and Its Derivatives**

Acridine sulfonamide and its derivatives are highly sensitive chemiluminescent labels that are widely used in clinical diagnostics. Typically, N-hydroxysuccinimide (NHS) ester of an acridine sulfonamide derivative react with primary amines of target protein in slightly alkaline conditions to form stable amide bonds. After the reaction, the free N-hydroxysuccinimide is removed by dialysis or desalting. In the presence of alkaline peroxide, the acridine-labeled protein emits light independently, without the need for an enzyme catalyst.

#### **Product Range**

Product Code	Product Name	MW	Pack Size*
LS-NSP-SA-NHS	Acridine sulfonamide	681.73	10mg, 50mg, 100mg, 500mg, 1g
LS-NSP-PA-NHS	Acridine sulfonamide derivative A	842.93	10mg, 50mg, 100mg, 500mg, 1g
LS-NSP-PB-NHS	Acridine sulfonamide derivative B	915.00	10mg, 50mg, 100mg, 500mg, 1g

<sup>\*</sup> Custom pack size is available upon the request of customers.

#### **Key Features**

	LS-NSP-SA-NHS	LS-NSP-PA-NHS	LS-NSP-PB-NHS	
Intended Use	Sandwich assay	Sandwich assay	Competitive assay	
High luminescent efficiency	•	•	•	
Reduce non-specific binding		•	•	
Increase the signal-to-noise ratio			•	

**Stability and storage,** 36 months shelf life at -20°C.

## **Pre-Trigger & Trigger Solution For Acridinium Chemiluminescence System**

## **Product Range**

For use as pre-trigger & trigger solution in acridinium chemiluminescence immunoassay.

Product Code	Product Name	Appearance Pack Size*
LS-DW-PAT	Pre-trigger solution	Clear liquid 1L, 5L, 10L
LS-DW-AT	Trigger solution	Clear liquid 1L, 5L, 10L

<sup>\*</sup> Custom pack size is available upon the request of customers.

**Stability and storage,** 18 months shelf life at room temperature.



## **Chemiluminescent Substrates For Horseradish Peroxidase (HRP)**

### **Product Range**

For use as chemiluminescent substrates in horseradish Peroxidase (HRP) system. The two-component reagents consist of Reagent A and Reagent B, used in equal volumes to attain intense light emission.

Product Code	Product Name	Appearance	Pack Size*
LS-DW-HRPA	Chemiluminescent HRP substrate Reagent A	Clear liquid	100ml, 1L, 5L
LS-DW-HRPB	Chemiluminescent HRP substrate Reagent B	Clear liquid	100ml, 1L, 5L

<sup>\*</sup> Custom pack size is available upon the request of customers.

Stability and storage, 18 months shelf life at 2-8°C.

## **Chemiluminescent Substrates For Alkaline Phosphatase (ALP)**

### **Product Range**

For use as chemiluminescent substrates in alkaline phosphatase (ALP) system.

Product C	ode Product Name	A	ppearance	Pack Size*
LS-DW-AP0	1 High Sensitivity APS-5 chemil	luminescent ALP substrate C	Clear light-yellow liquid	100ml, 1L, 5L
LS-DW-AP0	2 APS-5 chemiluminescent AL	_P substrate C	Clear light-yellow liquid	100ml, 1L, 5L
LS-DW-AP	APS-5 chemiluminescent AL	_P substrate P	Powder	1g, 10g, 50g, 100g
LS-DW-AM	AMPPD chemiluminescent A	ALP substrate P	Powder	1g, 10g, 50g, 100g

<sup>\*</sup> Custom pack size is available upon the request of customers.

Stability and storage, 24 months shelf life at 2-8°C for liquid solution and -20°C for powder.

## **Anti-Foaming Agents**

Excessive foam occurs many problems during IVD manufacturing. An abundance of foam can create difficulties in filling vessels, increase manufacturing times and decrease product quality. Our silicone based anti-foaming agents are specifically formulated to reduce and hinder the formation of foam in your production process.

#### **Product Range**

Recommended working concentration: 0.001%~0.05% (w/v)

Product Code	Appearance	Pack Size
LS-XP-01	Milky white viscous liquid	250g, 1Kg, 5Kg
LS-XP-02	Milky white viscous liquid	250g, 1Kg, 5Kg
LS-XP-03	Milky white viscous liquid	250g, 1Kg, 5Kg

## **ELISA**

## **Single Component HRP Substrate Solution**

3,3',5,5'-Tetramethylbenzidine (TMB) is a chromogenic substrate for horseradish peroxidase (HRP) conjugates in ELISA assay. This substrate develops soluble blue products and can be read spectrophotometrically at 370 or 655 nm. Acid can be added to stop the reaction and yield a yellow solution that is read at 450 nm.

#### **Product Range**

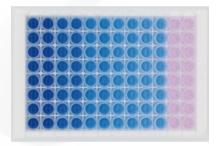
This product is supplied as a ready to use substrate solution containing TMB,  $H_2O_2$  and stabilizers. LS-DW-COR-sdTMB is comprised of same formulation as LS-DW-sdTMB plus color indicators.

Product Code	Appearance	Pack Size
LS-DW-sdTMB	Clear liquid	1L, 5L, 10L
LS-DW-COR-sdTMB	Clear light purple liquid	1L, 5L, 10L

### **Key Features**

- Ready to use clear liquid solution.
- Resistance to freeze-thaw conditions.
- No change occurs at the accelerated condition.

**Stability and storage,** 18 months shelf life at 2-8°C.



## **Supplemental Reagents**

## TMB Stop Solution (450 nm)

TMB stop solution is a ready to use, acid based solution (sulfuric acid free) to stop color development and slow down the formation of precipitation in ELISA assay. Addition of stop solution changes the color of TMB substrate from blue to yellow and can be read up to 2 hours at 450 nm.

Product Code	Appearance	Pack Size
LS-DW-ZZ	Clear light yellow liquid	1L, 5L

Stability and storage, 24 months at room temperature.

## Horseradish Peroxidase (HRP) Stabilizer / Diluent

Horseradish Peroxidase (HRP) Stabilizer / Diluent solution is designed to enhance the stability of diluted antibody-peroxidase conjugates. When antibody-peroxidase conjugates are diluted 500~50,000 fold with this product, they maintain a high level of reactivity at 2-8°C.

Product Code	Appearance	Pack Size
LS-HC-ES	Clear light yellow liquid	100ml, 250ml, 1L, 5L, 10L

Stability and storage, 12 months shelf life at 2-8°C.



## **Biocides**

### Isothiazolone Biocide

Isothiazolone Biocide is a solution of CMIT and MIT that eradicates active bacteria, yeasts and moulds in reagents and products used for immunoassay applications. The active ingredients quickly penetrate cell membrane of microorganisms and disrupt the cell's metabolic pathways, leading to cell death within hours. It provides efficient, cost-effective microbiological control at low use concentrations in immunoassay reagents.



#### **Product Description**

Product Code	Active Ingredients	% of total AI*	pH Range	Working Concentration	Pack Size**
LS-JQ-CL	CMIT/MIT	3.0 %	2.5 - 8.5	0.05% - 0.30% (w/v)	400ml, 1L, 5L

<sup>\*</sup> Al: Active Ingredients \*\* C

#### **Key Features**

- Broad-spectrum effect against bacteria, yeasts and moulds.
- Effective at relative low concentrations.
- Does not affect the functionality of most antibodies and enzymes.
- Can be used in a wide range of applications, such as ELISA, chemiluminescent immunoassay etc.

**Stability and storage,** 36 months shelf life at room temperature.

#### **BND Biocide**

BND (5-Bromo-5-nitro-1,3-dioxane) is an antimicrobial compound that is effective against both Gram-positive and Gram-negative bacteria, as well as fungi, including yeast. It works by oxidizing essential protein thiols, which inhibits enzyme activity and leads to the inhibition of microbial growth. BND has been commonly used as a preservative in immunoassay reagents.

#### **Product Description**

Product Code	Active Ingredients	% of total AI*	pH Range	Working Concentration	Pack Size**
LS-JQ-BND	5-Bromo-5-nitro-1, 3-dioxane	10 %	5.0 – 9.0	0.1% – 0.5% (w/v)	400ml, 1L, 5L

<sup>\*</sup> Al: Active Ingredients

#### **Key Features**

- Broad-spectrum effect against bacteria, yeasts and fungi.
- Does not affect the functionality of most antibodies and enzymes.
- Can be used in a wide range of applications, such as ELISA, chemiluminescent immunoassay etc.

**Stability and storage,** 36 months shelf life at room temperature.

<sup>\*\*</sup> Custom pack size is available upon the request of customers.

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## **Antibodies and Blockers**

## **Monoclonal Antibodies**

Product Code	Target Molecule	Species	Pair Recommendation	Application
LS-TSH-005	Human thyroid-stimulating hormone (TSH)	Mouse	Detection antibody	CLIA, ELISA
LS-TSH-006	Human thyroid-stimulating hormone (TSH)	Mouse	Capture antibody	CLIA, ELISA
LS-T3-001	Human triiodothyronine (T3)	Sheep	Capture/Detection antibody	CLIA, ELISA
LS-T4-003	Human thyroxine (T4)	Sheep	Capture/Detection antibody	CLIA, ELISA
LS-MYO-007	Human myoglobin (Myo)	Mouse	Capture antibody	CLIA
LS-MYO-008	Human myoglobin (Myo)	Mouse	Detection antibody	CLIA
LS-CRP-003	Human C-reactive protein (CRP)	Mouse	Capture antibody	CLIA
LS-CRP-004	Human C-reactive protein (CRP)	Mouse	Detection antibody	CLIA
LS-SAA-008	Human serum amyloid A (SAA)	Mouse	Capture antibody	CLIA
LS-SAA-009	Human serum amyloid A (SAA)	Mouse	Detection antibody	CLIA

## **Antigens**

Product Code	Product Name	Source	Application
LS-T2-LC-BIO	Biotin-LC-3,5-Diiodo-L-thyronine (T2)	Biotinylated T2	CLIA, ELISA
LS-T3-LC-BIO	Biotin-LC-Triiodothyronine (T3)	Biotinylated T3	CLIA, ELISA
LS-T4-LC-BIO	Biotin-LC-Thyroxine (T4)	Biotinylated T4	CLIA, ELISA
LS-T2-BSA	3,5-Diiodo-L-thyronine (T2) antigen	BSA Conjugate	CLIA, ELISA
LS-T3-BSA	Triiodothyronine (T3) antigen	BSA Conjugate	CLIA, ELISA
LS-T4-BSA	Thyroxine (T4) antigen	BSA Conjugate	CLIA, ELISA

## **Blockers**

Immunoassays rely on interactions between the analyte being measured and reagent antibodies to generate the assay signal. Thus, the presence of human endogenous antibodies in the sample matrix may lead to false positive or negative results, which can interfere with the accuracy of the assay. Human interfering antibodies are mainly classified into three categories: human anti-animal antibodies (HAAA), heterophilic antibodies (HA) and rheumatoid factors (RF). Immunoassay manufacturers should take adequate precautions to minimize the risk of interference. This can usually be achieved by adding non-immune animal serum, purified polyclonal antibodies or monoclonal antibodies from the same species as the capture and detector antibodies to the reaction buffer.

### **Product Description**

Product Code	Species	Pack Size	Intended Use
LS-HBR-001	Mouse monoclonal	50mg, 250mg, 500mg, 1g, 5g	Active remove HAMA interference.
LS-HBR-007	Mouse monoclonal	50mg, 250mg, 500mg, 1g, 5g	Active remove RF and HA (IgM type) interference.



## **Key Features**

- Superior alternative to purified non-immune mouse IgG.
- Large batch sizes (up to Kg quantities).
- Unique properties that effectively block the endogenous human heterophilic antibodies at relative low concentrations.
- Mouse monoclonal antibody to ensure lot-to-lot consistency.

Stability and storage, 36 months at -20°C.

## **Bulk Reagents Solutions**

Bulk reagents offer a flexible and customized option for customers seeking to develop their own assays. With our expertise and resources, we can work closely with you to design a product that is tailored to your specific needs.

## **Chemiluminescence Immunoassay Bulk Reagents**

## **Thyroid Hormone**

1000000	T3	T4	FT3*	FT4*	TSH*
Product Code	LS-CLAE-TT3	LS-CLAE-TT4	LS-CLAE-FT3	LS-CLAE-FT4	LS-CLAE-TSH
Test Principle	Competition	Competition	Competition	Competition	Sandwich
Assay Time	30 min	30 min	30 min	30 min	10 min
Assay Mode	Delayed one-step method				
Sample Volume	30 μL	30 μL	30 μL	30 μL	80 μL
Specimen Type	Serum / plasma				
Measuring Range	0.3~10nmol/L	5.4~350nmol/L	0.6~50pmol/L	0.5~100pmol/L	0.014-100μIU/mL
Limit of Detection	≤0.3nmol/L	≤5.4nmol/L	≤0.6pmol/L	≤0.5pmol/L	≤0.014μIU/mL
Limit of Blank	≤0.2nmol/L	≤2.7nmol/L			

<sup>\*</sup> The products will soon be available.

## Inflammation & Cardiovascular

	IL-6	PCT	SAA*	CRP*	Myo*	СКМВ	cTnl*	cTnT*
Product Code	LS-CLAE-IL6	LS-CLAE-PCT	LS-CLAE-SAA	LS-CLAE-CRP	LS-CLAE-MYO	LS-CLAE-CKMB	LS-CLAE-cTnI	LS-CLAE-cTnT
Test Principle	Sandwich	Sandwich	Sandwich	Sandwich	Sandwich	Sandwich	Sandwich	Sandwich
Assay Time	10 min	10 min	5 min	10 min	20 min	10 min	20 min	10min
Assay Mode	Delayed one-step method	One step	One step	One step	One step	One step	One step	One step
Sample Volume	30 μL	30 μL	5μL	10 μL	10 μL	30 μL	80 μL	50 μL
Specimen Type	Serum/plasma	Serum/plasma	Serum/plasma	Serum/plasma	Serum/plasma	Serum/plasma	Serum/plasma	Serum/plasma
Measuring Range	1.5-5000 pg/mL	0.03-100 ng/mL	3-200mg/L	0.5-200mg/L	21-3000 ng/mL	0.3-300ng/mL	10-50000pg/mL	3-30000pg/mL
Limit of Detection	< 1.5 pg/mL	< 0.02 ng/mL	≤3mg/L	≤0.5mg/L	≤21ng/mL	<0.3ng/mL		
Limit of Blank	< 0.1 pg/mL	< 0.01 ng/mL				<0.1ng/mL		

<sup>\*</sup> The products will soon be available.

## **Rapid Test Uncut Sheets**

## **Veterinary**

Product Code	Product Name	Platform	Dimension	Linear Range
LS-PTG-CDV	Canine distemper virus antigen (CDV)	Colloidal gold	6 cm x 30 cm	
LS-PTG-CPV	Canine parvovirus antigen (CPV)	Colloidal gold	6 cm x 30 cm	
LS-PTG-CCV	Canine coronavirus antigen (CCV)	Colloidal gold	6 cm x 30 cm	
LS-PTG-CAV	Canine adenovirus antigen (CAV)	Colloidal gold	6 cm x 30 cm	
LS-PTG-CDA	Canine distemper virus (CDV)/ adenovirus (CAV) antigen combo	Colloidal gold	6 cm x 30 cm	
LS-PTE-CDV	Canine distemper virus (CDV) antigen	Fluorescence	6 cm x 30 cm	
LS-PTE-CPV	Canine parvovirus (CPV) antigen	Fluorescence	6 cm x 30 cm	
LS-PTE-CCV	Canine coronavirus (CCV) antigen	Fluorescence	6 cm x 30 cm	
LS-PTE-CRP	Canine C-reactive protein (CRP)	Fluorescence	6 cm x 30 cm	1.5-150 mg/L
LS-PTG-FPV	Feline parvovirus (FPV) antigen	Colloidal gold	6 cm x 30 cm	
LS-PTG-FHV	Feline herpesvirus (FHV) antigen	Colloidal gold	6 cm x 30 cm	
LS-PTE-FPV	Feline parvovirus (FPV) antigen	Fluorescence	6 cm x 30 cm	
LS-PTE-SAA	Feline serum amyloid A (SAA)	Fluorescence	6 cm x 30 cm	1.5-150 mg/L

To learn more about our capabilities, products and services, or to discuss your specific needs,

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https://www.linslink.com/



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