

BIOENDO™

Bioendo Technology
Xiamen Bioendo Technology Co.,Ltd.
www.lalendotoxin.com

Lyophilized Amebocyte Lysate Products and Service



BIOENDO

Endotoxin
and
Beta-glucan
Detection
Expert



Dedicated to
Endotoxin & Beta-glucan Assay
Since the Year of 1978

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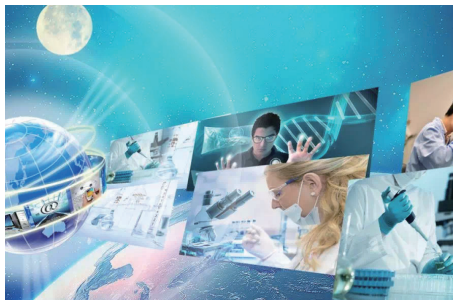
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Xiamen Bioendo Technology Co.,Ltd.



Company Profile



Xiamen Bioendo Technology Co., Ltd., founded in 1978, is the expert in the field of endotoxins and Fungi (1,3)- β -D-glucan testing. Bioendo works on promoting application and development of Lyophilized Amebocyte Lysate, derived from the blood of horseshoe crab (*Tachypleus tridentatus*), and dedicates to researching, developing, producing, and marketing Amebocyte Lysate for four decades. Our products are registered at CFDA (China Food and Drug Administration) since 1988. We participate in preparing national standard Amebocyte Lysate and Reference Standard Endotoxin and standardizing Control Standard Endotoxin for the Government of P.R. China.

Cooperating with School of Life Science, Xiamen University, Xiamen Medical College, Xiamen Ocean Vocational College, and other universities, Bioendo is excellent at R&D. And supported by strong R&D strength and advanced equipment, Bioendo produces high-quality Lyophilized Amebocyte Lysate and endotoxins assay kits.

Bioendo's products mainly contain Amebocyte Lysate and endotoxins assay kits in gel clot technique, kinetic chromogenic technique, kinetic turbidimetric technique and end-point chromogenic technique, endotoxins assay kits for water and dialysate, endotoxin removal kits, clinical diagnostic assay kit for detection of fungi (1,3) β -D-glucan or invasive fungal infection, and supported items for endotoxins detection like control standard endotoxin, water for bacterial endotoxins test, endotoxin-free buffers, endotoxin challenge vials.

Bioendo also provides instruments such as Kinetic Incubating Microplate Reader, dry heat incubator, laboratory water purification system, centrifuge and other accessories.

Company Profile



We could develop endotoxins assay kits based on what you need. Our products could effectively lower your cost of endotoxin test. We are the market leader of Amebocyte Lysate in China, and sell products with our own brand “Bioendo” to clients from all over the world. We could also do OEM for you.

We firmly believe quality is the life of an enterprise, therefore we strictly implement GMP and ISO9001 standard management, and have gained certificate of ISO13485 quality system. Bioendo’s Amebocyte Lysate and endotoxins assay kits feature strong resistance to interference, extensive applicability, strong improvement for heat stability. As an endotoxins detection expert, Bioendo looks forward to cooperate with you!





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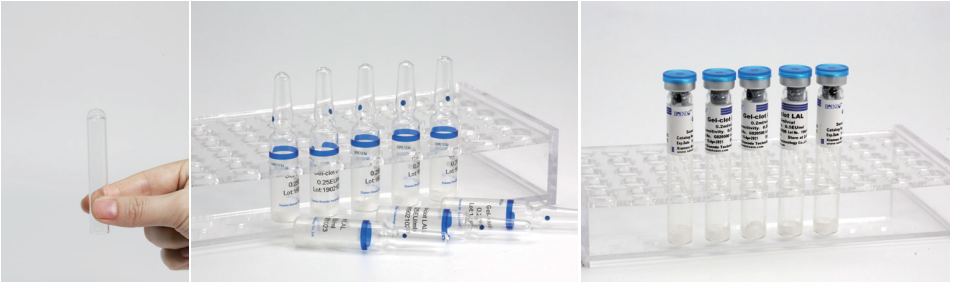
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The product information provided in this brochure is for reference only. Please check related quotation for final product description.

Product Introduction

1. Gel Clot Endotoxin Assay

The gel clot technique is used for detecting or semi-quantifying endotoxins based on clotting of the lysate reagent in the presence of endotoxin. The minimum concentration of endotoxin required to cause the lysate to clot under standard conditions is the labeled sensitivity of the lysate reagent. Incubate the reaction mixture for a constant period according to the directions indicated on COA (usually at $37\pm 1^\circ$ for 60 ± 2 min.) Then identify the sample that it is positive or negative based on whether an intact gel is formed or not.



1.1 Gel Clot Lyophilized Amebocyte Lysate Single Test in Vial

Gel Clot Lyophilized Amebocyte Lysate Single Test in Vial contains 0.2 ml Amebocyte Lysate which is sealed in a standard reaction tube under vacuum condition. For our Single Test in Vial, you could add sample to the reaction tube directly. This means you don't need to dilute Amebocyte Lysate at first, and you will decide how many vials use each time to avoid waste. None tube for dilution of CSE is needed. Operation of endotoxin detection by employing our Gel Clot Lyophilized Amebocyte Lysate Single Test in Vial conforms to USP and EP.

We also offer Bioendo™ Gel Clot Endotoxin Test Kit (Single Test in Vial, 50 Tests/Kit), which includes Gel Clot LAL, CSE, Water for BET.



Product Introduction

Catalog Number	Sensitivity EU/ml	Tests/Vial	Vials/Pack
G020015	0.015	Single Test per Vial	50
G020030	0.03		
G020060	0.06		
G020125	0.125		
G020250	0.25		
G020500	0.5		

Bioendo™ Gel Clot Endotoxin Test Kit, (Single Test in Vial, 50 Tests/Kit)

Catalog Number	Sensitivity EU/ml	Tests/Vial	Kit Contents
GS50020015	0.015	50	50 Gel Clot LAL; 2 CSE; 4 TRW10V
GS50020030	0.03		
GS50020060	0.06		
GS50020125	0.125		
GS50020250	0.25		
GS50020500	0.5		

1.2 Gel Clot Lyophilized Amebocyte Lysate Single Test in Ampoule

Gel Clot Lyophilized Amebocyte Lysate Single Test in Ampoule is the economic type of gel clot single test. The Amebocyte Lysate produced by Bioendo features strong resistance to interference and strong improvement for heat stability. Sensitivity of our Single Test in Ampoule covers 0.015EU/ml, 0.03 EU/ml, 0.06 EU/ml, 0.125 EU/ml, 0.25 EU/ml, 0.5 EU/ml.



Product Introduction

Catalog Number	Sensitivity EU/ml	Tests/Vial	Vials/Pack
G010015	0.015	Single Test per Vial	10
G010030	0.03		
G010060	0.06		
G010125	0.125		
G010250	0.25		
G010500	0.5		

Bioendo™ Gel Clot Endotoxin Test Kit, (Single Test in Ampoule, 44 Tests/Kit)

Catalog Number	Sensitivity EU/ml	Description	Kit Contents
GS44010030	0.03	Bioendo™ Gel Clot Endotoxin Test Kit, (Single Test in Ampoule, 44Tests/Kit)	44 Gel Clot LAL; 1 CSE 10A; 5 Water for BET , 2ml/vial
GS44010060	0.06		
GS44010125	0.125		
GS44010250	0.25		
GS44010500	0.5		

1.3 Gel Clot Lyophilized Amebocyte Lysate Multi-test Vial

Gel Clot Lyophilized Amebocyte Lysate Multi-test Vial includes 1.7 ml/vial, and 5.2 ml/vial; and sensitivity covers 0.03 EU/ml, 0.06 EU/ml, 0.125 EU/ml, 0.25 EU/ml, 0.5 EU/ml. The Multi-test Vial is available for you when you are doing large-scale gel clot assays.

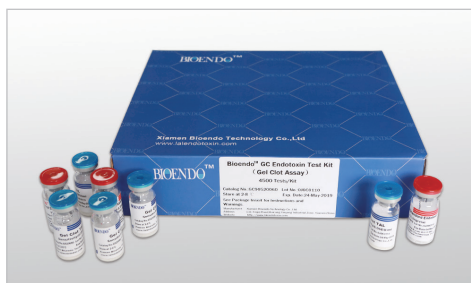


Product Introduction

Catalog Number	Sensitivity EU/ml	ml/vial	Tests/Vial	Vials/Pack
G170030	0.03	1.7	16	10
G170060	0.06			
G170125	0.125			
G170250	0.25			
G170500	0.5			
G520030	0.03	5.2	50	
G520060	0.06			
G520125	0.125			
G520250	0.25			
G520500	0.5			

1.4 Bioendo™ GC Endotoxin Test Kit (Gel Clot Assay)

Bioendo GC Endotoxin Test Kit (Gel Clot Assay) contains 128 Tests/Kit, 400 Tests/Kit, and 4500 Tests/Kit. And sensitivity of Amebocyte Lysate included by the kit could cover 0.03 EU/ml, 0.06 EU/ml, 0.125 EU/ml, 0.25 EU/ml, 0.5 EU/ml. For Bioendo GC Endotoxin Test Kit, Amebocyte Lysate, CSE and Water for BET are included, which will avoid the mismatching between Amebocyte Lysate and CSE. Bioendo GC Endotoxin Test Kit is specially suitable for you when you need to do lots of endotoxin detection. Customized gel clot endotoxin assay kit is available upon your demand.



Product Introduction

Catalog Number	Sensitivity EU/ml	Description	Kit Contents
GC90520030	0.03	Bioendo™ GC Endotoxin Test Kit (Gel Clot Assay) 4500 Tests/Kit	90 Gel Clot LAL, 5.2ml (50 Tests/Vial); 20 CSE10V;
GC90520060	0.06		
GC90520125	0.125		
GC90520250	0.25		
GC90520500	0.5		
GC08520030	0.03	Bioendo™ GC Endotoxin Test Kit (Gel Clot Assay) 400 Tests/Kit	8 Gel Clot LAL, 5.2ml (50 Tests/Vial); 4 CSE10V; 2 Water for BET, 50ml/vial
GC08520060	0.06		
GC08520125	0.125		
GC08520250	0.25		
GC08520500	0.5		
GC08170030	0.03	Bioendo™ GC Endotoxin Test Kit (Gel Clot Assay) 128 Tests/Kit	8 Gel Clot LAL, 1.7ml (16 Tests/Vial); 4 CSE10V; 2 Water for BET, 50ml/vial;
GC08170060	0.06		
GC08170125	0.125		
GC08170250	0.25		
GC08170500	0.5		

2. Endotoxin-specific Lyophilized Amebocyte Lysate

Endotoxin-specific Lyophilized Amebocyte Lysate is developed to only react with endotoxin, which could avoid false positive caused by β -glucan. This will ensure reliable detection results. Therefore, Endotoxin-specific Lyophilized Amebocyte Lysate is the best choice to do endotoxin detection for samples which are contaminated with β -glucan. We, Bioendo, provide Endotoxin-specific Lyophilized Amebocyte Lysate reagents which satisfy with different techniques such as gel clot technique, kinetic turbidimetric technique, kinetic chromogenic technique, and end-point chromogenic technique.

Catalog Number	Sensitivity (EU/ml)
ES010030	0.03
ES010060	0.06
ES010125	0.125
ES010250	0.25
ES010500	0.5

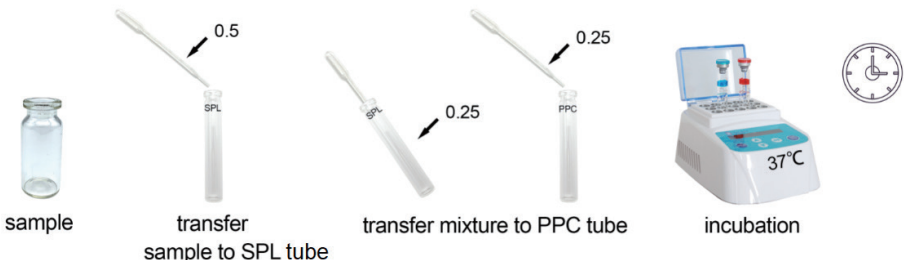
Product Introduction

3. Endotoxin Test Kit for Water and Dialysate

LPS can be transferred through membrane with large pore size by back-filtration from the dialysis fluid to the blood, inflammatory problems may be caused accordingly. No matter it is pharmaceutical factory providing dialysis solution or hospital treating patients with dialysate, they all should do endotoxin detection for related dialysis solutions. We offer two kits for easily detect endotoxin in dialysate and water for dialysis purpose.

3.1 Bioendo™ Rapid Gel Clot Endotoxin Assay Kit

Rapid Gel Clot Endotoxin Assay Kit is designed to rapidly quantify endotoxin in water or dialysate. Our Rapid Gel Clot Endotoxin Assay Kit contains sample tube (SPL), positive product control (PPC) tube, endotoxin-free sample bottle, and pyrogen-free pipettors. You don't need to dilute Control Standard Endotoxin. All accessories you need are included by the kit. The shortest time to get result is about 25 minutes. The assay doesn't require any sophisticated instrument. It is a convenient and rapid way to quantify endotoxin.



Product Introduction

Catalog Number	Description	Kit Contents	Sensitivity EU/ml	Reaction Time Minutes
RG025003			0.03	≤ 60
RG025006			0.06	≤ 60
RG0250125	Bioendo™ Rapid Gel Clot Endotoxin Assay Kit, One Sample Kit	1 SPL Tube; 1 PPC Tube; 1 Endotoxin-free Sample Bottle;	0.125	≤ 45
RG025025		1 Pack of Transfer Pipettes	0.25	≤ 30
RG025050		(3pcs/pack)	0.5	≤ 30
RG025100			1	≤ 30
RG025200			2	≤ 30
RG10025003			0.03	≤ 60
RG10025006		10 SPL Tubes; 10 PPC Tubes;	0.06	≤ 60
RG100250125	Bioendo™ Rapid Gel Clot Endotoxin Assay Kit, 10 Samples Kit	10 Endotoxin-free Sample Bottles;	0.125	≤ 45
RG10025025		10 Packs of Transfer Pipettes	0.25	≤ 30
RG10025050		(3pcs/pack)	0.5	≤ 30
RG10025100			1	≤ 30
RG10025200			2	≤ 30

3.2 Endotoxin Assay Kit for Water and Dialysate (Gel Clot Assay)

Endotoxin Assay Kit for Water and Dialysate (Gel Clot Assay) assays the endotoxin in water or dialysate using gel clot technique. Operation of endotoxin detection by using our Endotoxin Assay Kit for Water and Dialysate conforms to what USP& EP require. Furthermore, our Endotoxin Assay Kit for Water and Dialysate contain endotoxin-specific Amebocyte Lysate, which will only react with endotoxin and will avoid false positive reaction with Fungi (1,3)- β -D-glucan in the dialysis membrane.



Product Introduction

Catalog Number	Description	Kit Contents	Sensitivity (EU/ml)
GD010030	Endotoxin Assay Kit for Water and Dialysate (Gel Clot Assay), One Sample Kit	8 Gel Clot LAL; 2 CSE; 4 Water for BET, 2ml/vial; 1 Sample Bottle; 2 Packs of 1000µl Tips; 3 Packs of 200µl Tips;	0.03
GD010060			0.06
GD010125			0.125
GD010250			0.25
GD010500			0.5
GD011000			1
GD012000			2

4. End-point Chromogenic Endotoxin Assay

4.1 Bioendo™ EC Endotoxin Test Kit



Bioendo™ EC Endotoxin Test Kit provides a fast measurement for endotoxin quantification. The endotoxin in the sample activates a cascade of enzymes in Amebocyte Lysate, the activated enzyme splits the synthetic substrate, releasing a yellow-colored product with maximum absorbance at 405nm. The yellow product can further react with diazo reagents forming purple product with maximum absorbance at 545nm. The absorbances of both yellow product and purple product are proportional to endotoxin levels, therefore, endotoxin is quantified. A regular spectrophotometer or plate reader is required for the assay.

Recommended standard curve range is 0.1-1.0EU/ml for about 16 minutes assay time. You may increase the incubation time to 40 minutes to 60 minutes to reach the sensitivity of 0.01-0.1EU/ml. Please see package insert for the instruction.

Product Introduction

Catalog Number	Description	Kit Contents	Sensitivity EU/ml
EC64405	Bioendo™ EC Endotoxin Test Kit (End-point Chromogenic Assay), 64 Tests/Kit	2 Lyophilized Amebocyte Lysate, 1.7ml/vial; 2 Water for BET, 50ml/vial; 2 CSE;	0.1 - 1 EU/ml
EC64405S		4 Chromogenic Substrate, 1.7ml/vial; 1 Stop Reagent, 20ml/vial;	0.01 - 0.1 EU/ml; 0.1 - 1 EU/ml
EC32545	Bioendo™ EC Endotoxin Test Kit (End-point Chromogenic Assay, Diazo Coupling), 32 Tests/Kit	2 Lyophilized Amebocyte Lysate, 1.7ml/vial; 2 Water for BET, 50ml/vial; 2 CSE;	0.1 - 1 EU/ml
EC32545S		2 Chromogenic Substrate, 1.7ml/vial; 2 Diazo Reagent 1, 10ml/vial; 2 Diazo Reagent 2, 10ml /vial; 2 Diazo Reagent 3, 10ml/vial;	0.1 - 1 EU/ml; 0.01 - 0.1 EU/ml
EC80545	Bioendo™ EC Endotoxin Test Kit (End-point Chromogenic Assay, Diazo Coupling), 80 Tests/Kit	5 Lyophilized Amebocyte Lysate, 1.7ml/vial; 3 Water for BET, 50ml/vial; 5 CSE;	0.1 - 1 EU/ml
EC80545S		5 Chromogenic Substrate, 1.7ml/vial; 5 Diazo Reagent 1, 10ml/vial; 5 Diazo Reagent 2, 10ml /vial; 5 Diazo Reagent 3, 10ml/vial;	0.1 - 1 EU/ml; 0.01 - 0.1 EU/ml

5. Kinetic Turbidimetric Endotoxin Assay

Kinetic Turbidimetric Endotoxin Assay is a simple measurement for endotoxin quantification. Based on the principle that in the presence of Amebocyte Lysate becomes turbid, the increase rate of turbidity is proportional to the endotoxin concentration of the sample, the endotoxin is quantified. The highest sensitivity of kinetic turbidimetric assay is 0.005EU/ml. The detection range is up to four orders of magnitude in a single standard curve. Using kinetic microplate reader ELx808IULALXH and software, kinetic turbidimetric assay automatic quantify endotoxins in a single step for 96 tests at a time. The test efficiency could be improved dramatically with the help of multi-channel pipettor or automatic sample processing device. Kinetic turbidimetric assay is applicable to the pharmaceutical industry endotoxin monitoring in the manufacturing process, including raw materials, water for injection, intermediate products and end products endotoxin tests.

Product Introduction

5.1 Kinetic Turbidimetric Amebocyte Lysate Vial



Catalog Number	ml/Vial	Tests/Vial	Vials/Pack	Sensitivity EU/ml
KT17	1.7	16	10	0.01-10EU/ml
KT17S	1.7	16		0.005-50EU/ml
KT28	2.8	26		0.01-10EU/ml
KT28S	2.8	26		0.005-50EU/ml
KT52	5.2	50		0.01-10EU/ml
KT52S	5.2	50		0.005-50EU/ml

5.2 Bioendo™ KT Endotoxin Test Kit (Kinetic Turbidimetric Assay)



Product Introduction

Catalog Number	Description	Kit Contents	Sensitivity EU/ml
KT9028	Bioendo™ KT Endotoxin Test Kit (Kinetic Turbidimetric Assay), 2340 Tests/Kit	90 Lyophilized Amebocyte Lysate, 2.8ml (26 Tests/vial); 20 CSE;	0.01 - 10 EU/ml
KT9028S			0.005-50EU/ml
KT0828	Bioendo™ KT Endotoxin Test Kit (Kinetic Turbidimetric Assay), 208 Tests/Kit	8 Lyophilized Amebocyte Lysate, 2.8ml (26 Tests/vial); 4 CSE;	0.01 - 10 EU/ml
KT0828S		2 Water for BET, 50ml/vial;	0.005 - 50 EU/ml
KT0852	Bioendo™ KT Endotoxin Test Kit (Kinetic Turbidimetric Assay), 400 Tests/Kit	8 Lyophilized Amebocyte Lysate, 5.2ml (50 Tests/vial); 4 CSE;	0.01 - 10 EU/ml
KT0852S		3 Water for BET, 50ml/vial;	0.005 - 50 EU/ml

6. Kinetic Chromogenic Endotoxin Assay

In kinetic chromogenic assay method, Amebocyte Lysate is co-lyophilized with chromogenic substrate. Same as the kinetic turbidimetric assay, the assay is performed in an incubating microplate reader ELx808IULALXH. The increase of OD at 405nm is recorded and interpreted by the instrument and software, the endotoxin concentration is also calculated. Kinetic chromogenic assay combines the advantages of kinetic turbidimetric and end-point chromogenic method. Without depending on the activity of clotting protein to form the gel clot, the assay is strong resistance to interference. Especially suitable for the biological samples, such as a vaccine, antibody, protein, nucleic acid, etc.. Sensitivity of our Kinetic Chromogenic Amebocyte Lysate could reach 0.001 EU/ml.

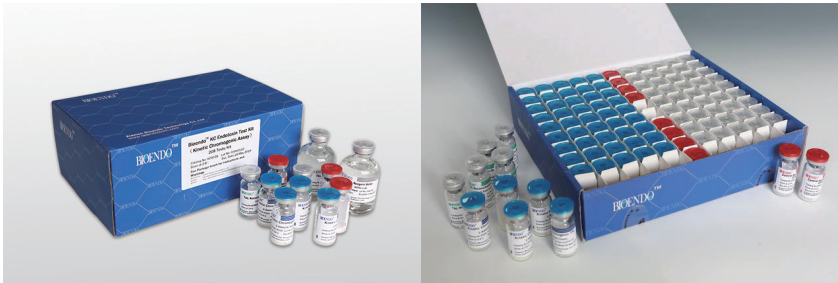
6.1 Kinetic Chromogenic Amebocyte Lysate Vial



Product Introduction

Catalog Number	ml/Vial	Tests/Vial	Vials/Pack	Sensitivity EU/ml
KC11	1.1	10	10	0.005-50EU/ml
KC11S	1.1	10		0.001-10EU/ml
KC17	1.7	16		0.005-50EU/ml
KC17S	1.7	16		0.001-10EU/ml
KC22	2.2	20		0.005-50EU/ml
KC22S	2.2	20		0.001-10EU/ml
KC28	2.8	26		0.005-50EU/ml
KC28S	2.8	26		0.001-10EU/ml

6.2 Bioendo™ KC Endotoxin Test Kit (Kinetic Chromogenic Assay)



Catalog Number	Description	Kit Contents	Sensitivity EU/ml
KC5028	Bioendo™ KC Endotoxin Test Kit (Kinetic Chromogenic Assay), 1300 Tests/Kit	50 Chromogenic Amebocyte Lysate, 2.8ml (26 Tests/vial);	0.005-50 EU/ml
KC5028S		50 Reconstitution Buffer, 10 CSE;	0.001-10EU/ml

Product Introduction

KC0828	Bioendo™ KC Endotoxin Test Kit (Kinetic Chromogenic Assay), 208 Tests/Kit	8 Chromogenic Amebocyte Lysate, 2.8ml (26 Tests/vial); 8 Reconstitution Buffer, 4 CSE; 2 Water for BET, 50ml/vial;	0.005 - 50 EU/ml
KC0828S			0.001-10 EU/ml
KC48T	Bioendo™ KC Endotoxin Test Kit (Kinetic Chromogenic Assay), 48 Tests/Kit	3 Chromogenic Amebocyte Lysate, 1.7ml/vial; 3 Reconstitution Buffer, 3 CSE; 2 Water for BET, 50ml/vial; Pyrogen-free Tips; Endotoxin-free Glass Test Tubes; Pyrogen-free Microplate;	0.005-50 EU/ml
KC48TS			0.001-10 EU/ml
KC42T	Bioendo™ KC Endotoxin Test Kit (Kinetic Chromogenic Assay), 42 Tests/Kit	2 Chromogenic Amebocyte Lysate, 2.2ml/vial; 2 Reconstitution Buffer, 2 CSE; 1 Water for BET, 50ml/vial; Pyrogen-free Tips; Endotoxin-free Glass Test Tubes; Pyrogen-free Microplate;	0.005-50 EU/ml
KC42TS			0.001-10 EU/ml

7. Clinical Diagnostic Reagents

7.1 Fungi (1,3)-β-D-glucan Assay Kit



Product Introduction

Based upon Factor G mediated TAL pathway, Fungi (1,3)- β -D-glucan assay detects (1, 3)- β -D-glucan in human plasma or serum in one hour. The highly sensitive, rapid assay assists clinicians in identifying Invasive Fungal Disease (IFD) early in the disease process. The kit is CFDA cleared for clinic diagnostic purpose.

Immunosuppressed patients are at high risk for developing invasive fungal disease, which is often difficult to diagnose. Affected patient populations include:

- ◆ Cancer patients undergoing chemotherapy
- ◆ Stem Cell and Organ Transplant patients
- ◆ Burn patients
- ◆ HIV patients
- ◆ ICU patients...

Catalog Number	Description	Kit Contents
KTG20	Fungi (1,3)- β -D-glucan Assay Kit (Kinetic Turbidimetric Method), 20 Tests/Kit	20 Lyophilized Amebocyte Lysate, Single Test Vial; 20 Sample Treatment Solutions 0.9ml/vial;
KCG50	Fungi (1,3)- β -D-glucan Assay Kit (Kinetic Chromogenic Method), 50 Tests/Kit	5 Chromogenic Amebocyte Lysate 1.1ml/vial; 1 (1,3)- β -D-Glucan Standard, 5-10ng/vial; 2 Reconstitution Buffer, 5ml/vial; 1 Tris Buffer, 3ml/vial; 1 Sample Treatment Solution A, 2ml; 1 Sample Treatment Solution B, 2ml;
KCG80	Fungi (1,3)- β -D-glucan Assay Kit (Kinetic Chromogenic Method), 80 Tests/Kit	5 Chromogenic Amebocyte Lysate 1.7ml/vial; 2 (1,3)- β -D-Glucan Standard, 5-10ng/vial; 2 Reconstitution Buffer, 10ml/vial; 1 Tris Buffer, 6ml/vial; 1 Sample Treatment Solution A, 3ml; 1 Sample Treatment Solution B, 3ml;
KCG100	Fungi (1,3)- β -D-glucan Assay Kit (Kinetic Chromogenic Method), 100 Tests/Kit	5 Chromogenic Amebocyte Lysate 2.2ml/vial; 2 (1,3)- β -D-Glucan Standard, 5-10ng/vial; 2 Reconstitution Buffer, 10ml/vial; 1 Tris Buffer, 6ml/vial; 1 Sample Treatment Solution A, 3ml; 1 Sample Treatment Solution B, 3ml;

Product Introduction

7.2 Endotoxin Assay Kit for Human Plasma



CFDA cleared Clinical diagnosis of Endotoxin assay kit quantifies endotoxin level in human plasma. Endotoxin is a major component of the cell wall of Gram Negative bacteria and is the most important microbial mediator of sepsis. Elevated levels of endotoxin can often induce fever, changes in white blood cell counts and, in some cases, cardiovascular shock. With kinetic microplate reader and endotoxin assay software, Endotoxin assay kit detects endotoxin level in human plasma in less than one hour. The kit comes with the plasma pre-treatment solution that eliminates the inhibition factors in plasma during the endotoxin assay.

Product Introduction

Catalog Number	Description	Kit Contents
KTE20	Endotoxin Assay Kit for Human Plasma (Kinetic Turbidimetric Method), 20 Tests/Kit	20 Lyophilized Amebocyte Lysate 0.1ml/vial, Single Test Vial; 20 Sample Treatment Solutions 0.9ml/vial;
KCE50	Endotoxin Assay Kit for Human Plasma (Kinetic Chromogenic Method), 50 Tests/Kit	5 Chromogenic Amebocyte Lysate 1.1ml/vial; 1 CSE; 2 Reconstitution Buffer, 5ml/vial; 1 Sample Treatment Solution 1 Water for BET;
KCE80	Endotoxin Assay Kit for Human Plasma (Kinetic Chromogenic Method), 80 Tests/Kit	5 Chromogenic Amebocyte Lysate 1.7ml/vial; 1 CSE; 2 Reconstitution Buffer, 10ml/vial; 1 Sample Treatment Solution; 1 Water for BET;
KCE100	Endotoxin Assay Kit for Human Plasma (Kinetic Chromogenic Method), 100 Tests/Kit	5 Chromogenic Amebocyte Lysate 2.2ml/vial; 1 CSE; 2 Reconstitution Buffer, 10ml/vial; 1 Tris Buffer, 6ml/vial; 1 Sample Treatment Solution; 1 Water for BET;
KCE20	Endotoxin Assay Kit for Human Plasma (Kinetic Chromogenic Method), 20 Tests/Kit	20 Chromogenic Amebocyte Lysate 0.1ml/vial, Single Test Vial; 20 Sample Treatment Solutions 0.9ml/vial;

Product Introduction

8. Bacterial Endotoxin Detection Accessories

8.1 Endotoxin-free Buffers



Catalog Number	Description	Note	Package
BH10	50mM Tris Buffer, pH7.0, 10ml/vial	Used to dilute highly acidic or basic samples	10 Vials/Pack
BH50	50mM Tris Buffer, pH7.0, 50ml/vial		
BY10	10mM Magnesium Buffer, 10ml/vial	Used to overcome chelation effect.	
BT10	β -glucans Blocker, 10ml/vial	Used to block β -glucan interference in Amebocyte Lysate endotoxin reactions.	
BA10	0.1N HCL, 10ml/vial	Used to adjust the pH of alkaline samples.	
BB10	0.1N NaOH, 10ml/vial	Used to adjust the pH of acidic samples	
PBS50	PBS Buffer Endotoxin-free, 50ml/vial	Use to wash sample containers, or adjust pH	
PBS500	PBS Buffer Endotoxin-free, 500ml/vial		

Product Introduction

8.2 Control Standard Endotoxin (CSE)



Control Standard Endotoxin (CSE) is an economic alternative to Reference Standard Endotoxin (RSE) in constructing standard curves, validating product and preparing controls in endotoxin test. The potency of CSE is referenced against USP Reference Standard Endotoxin, and labeled in the Certificate of Analysis.

Catalog Number	Potency (EU/vial)	Package
CSE10A	1-99	In Ampoule, 10 Ampoules/Pack
CSE10V	1-199	In Vial, 10 Vials/Pack
CSE100V	200-999	

Product Introduction

8.3 Water for Bacterial Endotoxins Test



Water for Bacterial Endotoxins Test is specially processed water intended for endotoxin detection. Its endotoxin concentration is less than 0.005EU/ml. We also provide water for BET with endotoxin level less than 0.001EU/ml for the assay sensitivity 0.001 - 10EU/ml kinetic chromogenic assay. Water for Bacterial Endotoxins Test (i.e. Water for BET) could be used as the negative control in endotoxin assay to dilute the Control Standard Endotoxin, to extract the endotoxin in the test samples and to dilute samples. Various packages, such as 2ml, 5ml, 10ml, 50ml, 100ml, 500ml/vial, are provided for users' convenience.

Catalog Number	Volume (ml/Vial)	Package
TRW02	2ml in Ampoule	In Ampoule, 10 Ampoules/Pack
TRW05	5ml in Ampoule	
TRW10A	10ml in Ampoule	
TRW50	50ml in Glass Vial	In GlassVial, 10 Vials/Pack
TRW100	100ml in Glass Vial	
TRW500	500ml in Plastic Vial	In Plastic Vials, 1 Vial/Pack

Product Introduction

8.4 Endotoxin Challenge Vials (Endotoxin Indicator)



The Endotoxin Challenge Vial (Endotoxin Indicator) is used in the validation of dry heat depyrogenation cycles. Endotoxin Challenge Vials are placed in the cold spots of the dry-heat oven or dry-heat tunnel. After cycle completion, the log reduction in endotoxin levels can be determined by comparing the endotoxin levels in the baked vs non-baked control Endotoxin Indicators. The Endotoxin Challenge vials are designed to indicate a minimum 3-log reduction in endotoxin content when tested using gel clot, kinetic turbidimetric or chromogenic endotoxin assays. Endotoxin Challenge Vial contains 1000-100000EU Endotoxin. ECV1250V and ECV2500V are sealed in vials with heat resistant stoppers and labels, could be placed in dry-heat oven or dry-heat tunnel without removal of stoppers and caps. ECV1250A and ECV2500A are sealed in ampoules.

Catalog Number	Endotoxin Level(EU/Vial)	Package
ECV1250A	1000-10000	In Ampoule, 10 Ampoules/Pack
ECV1250V	1000-10000	In Vial, 10 Vials/Pack
ECV2500A	2000-10000	In Ampoule, 10 Ampoules/Pack
ECV2500V	2000-10000	In Vial, 10 Vials/Pack
ECV100000V	50000-200000	In Vial, 10 Vials/Pack

Product Introduction

8.5 Endotoxin-free Glass Test Tubes

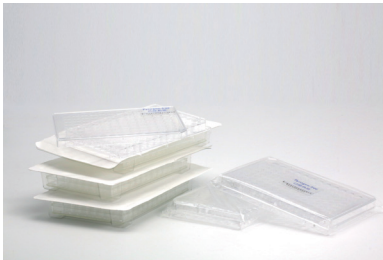
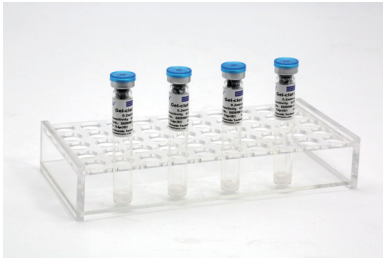


Endotoxin-free glass test tubes contain less than 0.005 EU/tube endotoxin. Catalog number T107505, T107550 and T105005 are recommended for use as reaction tubes in gel clot and end-point chromogenic assays. Catalog number T1310005 is recommended for dilution of endotoxin standards and test samples. T105005C is a special designed short endotoxin reaction tube that allows the pipette tips reaches the tube bottom.

Catalog Number	Size (Outside Diameter) mm	With Aluminum Caps	Package Tubes/Pack
T087505	φ8×75	no	5
T105005C	φ10×50	yes	5
T105005		no	
T107505C	φ10×75	yes	5
T107505		no	
T107530		no	
T127505C	φ12×75	yes	5
T127505		no	
T127530		no	
T1310005C	φ13×100	yes	5
T1310005		no	
T1310030		no	

Product Introduction

8.6 Pyrogen-free Microplates, 96 Well Plate Strips and Reagent Reservoir

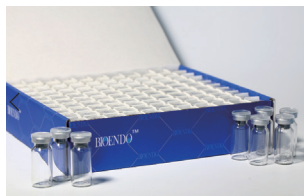


These 96-well plates can be used with the End-point Chromogenic Assay, Kinetic Chromogenic Assay and Kinetic Turbidimetric Assay. The plates contain <math><0.0005</math> EU/well endotoxin. Catalog number MPC96 is the pyrogen-free 8 well 96-well plate strip. Strips are individual wrapped.

Catalog Number	Description
MP96	Pyrogen-free 96-well Microplate with Lid
MPC96	Pyrogen-free 8 well 96-well Plate Strips, Individual Wrapped
RR5	Pyrogen-free Reagent Reservoir, 5pcs/Pack
TR01	Test Tube Rack
TR02	Ampoule Rack

Product Introduction

8.7 Endotoxin-free Sample Bottles



Endotoxin-free sample bottles contain less than 0.005EU/ml endotoxin. It would be used to store test sample or to transport product samples.

Catalog Number	Description	Package
PA10	Endotoxin-free Sample Bottle, 10ml	10 pcs/Pack or 110pcs/Pack
PA50	Endotoxin-free Sample Bottle, 50ml	10 pcs/Pack

8.8 Pyrogen-free Pipette Tips

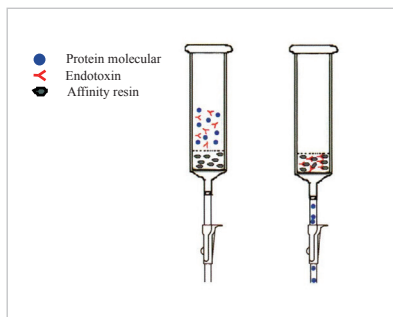


Pyrogen-free pipette tips are certified to contain <0.001 EU/ml endotoxin. The tips allow more flexibility with different pipettors.

Catalog Number	Description	Package
PT2005	Pyrogen-free 200μl Pipette Tips	5 Tips/Pack
PT10004	Pyrogen-free 1000μl Pipette Tips	4 Tips/Pack
PT20096	Pyrogen-free 200μl Pipette Tips	96 Tips/Box
PT100096	Pyrogen-free 1000μl Pipette Tips	100 Tips/Box

Product Introduction

9. Endotoxin Removal Products



Bioendo's EtEraser endotoxin removal kits, containing endotoxin removal column, are designed to remove $\geq 99\%$ endotoxin from aqueous solutions in less than 2 hours.

EtEraser HP High Efficient Endotoxin Removal Kit utilizes immobilized affinity ligand modified PMB to bind and remove endotoxin from aqueous solution. The modified PMB (polymyxin B) ligand is a high specific endotoxin binding ligand. The column has very high protein recovery rate which could reach more than 95%. Endotoxin concentration could be reduced to less than 0.1 EU/ml after EtEraser HP High Efficient Endotoxin Removal Kit is employed.

EtEraser SE Endotoxin Removal Kit utilizes non-toxin food grade modified ϵ -poly-L-lysine as high affinity ligand for endotoxins. The resin is agarose beads which is very stable and has no cytotoxic effect to human body. After purification, there will no toxic residual remained in the samples. Our EtErase SE Endotoxin Removal Kit can be applied to remove endotoxin in protein drugs, vaccines, antibodies, DNA/RNA, polysaccharide and other biological samples.

Catalog Number	Description	Kit Contents
ER0015	EtEraser™ HP Endotoxin Removal Kit	EtEraser™ HP Endotoxin Removal Pre-packed Column 1.5ml; Equilibration Buffer; Regeneration Buffer; Endotoxin-free Collection Tube; Pyrogen-free tips

Product Introduction

Catalog Number	Description	Kit Contents
ER0100	EtEraser™ HP Endotoxin Removal Resin	EtEraser™ HP Endotoxin Removal Resin 10ml; Regeneration Buffer; Equilibration Buffer
ER0015SE	EtEraser™ SE Non-toxic Endotoxin Removal Kit	EtEraser™ SE Non-toxic Endotoxin Removal Pre-packed Column 1.5ml; Equilibration Buffer; Regeneration Buffer; Endotoxin-free Collection Tube; Pyrogen-free Tips;
ER0100SE	EtEraser™ SE Non-toxic Endotoxin Removal Resin	EtEraser™ SE Non-toxic Endotoxin Removal Resin 10ml; Regeneration Buffer; Equilibration Buffer

10. Lab Equipment and Software

10.1 Kinetic Incubating Microplate Reader ELx808IULALXH



Product Introduction

Kinetic Incubating Microplate Reader ELx808IULALXH is a multifunctional kinetic reader designed for bacterial endotoxin assay, fungi (1,3)- β -D-glucan assay and ELISA assays. The reader is a highly accurate, easy to use instrument for kinetic turbidimetric assay, kinetic chromogenic assay and end-point chromogenic assay.

Instrumental Parameters:

- ◆ Wavelength range of 340-900nm, suitable for ultraviolet and visible light detection.
- ◆ 6 filter wheel, standard configuration with 5 filters (340, 405, 450, 540 and 630nm).
- ◆ Temperature control range: room temperature+5 °C to 50 °C
- ◆ Standard curve linear correlation coefficient: $|r| \geq 0.99$
- ◆ Assay repeatability: $CV \leq 5\%$
- ◆ 96 tests per plate

Application Range:

- ◆ Bacterial endotoxin (pyrogen) assay of
drugs, vaccines, Water for Injection
medical devices, infusion, transfusion related devices
dialysate, dialysis water endotoxin testing
cell suspension, cell culture media, cell culture related products
recombinant protein, nucleic acid and other molecular biological products
- ◆ Endotoxin level monitoring during production: pharmaceutical raw materials, intermediate products, end product endotoxin daily monitoring.
- ◆ Clinical diagnostic of sepsis and invasive fungi disease: plasma, serum, urine, cerebrospinal fluid endotoxin and (1,3)-beta-D-glucan detection.

Product Introduction

Catalog Number	Description
KPR808IULAL	Kinetic incubating microplate reader ELx808IULALXH for Endotoxin and β -glucan detection

10.2 Endotoxin and (1,3)- β -D-glucan Assay Software

EndoMaster™ Endotoxin and (1,3) - β -D-glucan Professional Analysis Software is a powerful kinetic data analysis software, which gives the user data acquisition and processing of the maximum flexibility.

Features:

- ◆ Apply to Endotoxin assay, (1,3) - β -D-glucan assay and ELISA data analysis
- ◆ With standard version and clinical diagnostic version for the different user groups.
- ◆ Data could be output transitions and connected to the LIS system.
- ◆ Customizable endotoxin test reports.
- ◆ Data analyzed by onset time, average rate, maximum rate and other methods.
- ◆ Data linear fitting or polynomial fitting.
- ◆ Real-time backup of the original data read.
- ◆ Integration of variety of kinetic microplate readers.

Catalog Number	Description
Gen5	Gen5 Software for BioTek ELx808IULALXH
SGen5S	Gen5 Secure Software for BioTek ELx808IULALXH
EM01	Endotoxin and (1,3)- β -D-glucan Assay Software EndoMaster

Product Introduction

10.3 Dry Heat Incubator Series

10.3.1 Mini Dry Heat Incubator



Catalog Number	TAL-MT
Product Name	TAL-MT Mini Dry Heat Incubator
Temperature Range	Ambient+5 ℃—110 ℃
Time Required	≤15 min. (from 20 ℃ rise to 100 ℃);
Temperature Stability @100 ℃	≤±0.5 ℃
Temperature Uniformity@40 ℃	≤±0.3 ℃
Temperature Displayed Precision	0.1 ℃
Temperature Control Time	0-999 min.
Highest Temperature	110 ℃
Power	60W
Weight	≤1kg

Product Introduction

10.3.2 Double Modules and Four Modules Dry Heat Incubator



Catalog Number	TAL-M2	TAL-M2A	TAL-M4
Product name	TAL-M2 Dry Heat Incubator (Double Modules)	TAL-M2 Dry Heat Incubator (Double Modules)	TAL-M4 Dry Heat Incubator (Four Modules)
Temperature Range	Ambient +5 °C ~ 150 °C		Ambient+5 °C ~ 120 °C
Time Required	≤ 30 min (from 20 °C rise to 150 °C)		≤ 30 min (from 20 °C rise to 120 °C)
Temperature Stability @100~150 °C	≤ ±1 °C		
Temperature Stability @40~100 °C	≤ ±0.5 °C		
Temperature Uniformity 40 °C	0.3 °C		
Displayed Precision	0.1 °C		
Temperature Control time	99h59min		
Highest Temperature	150 °C		120 °C
Power	400W		600W
Dimension	260x220x95mm	260x290x95mm	360x220x95mm

Product Introduction

10.3.3 Dual Temperature Control Dry Bath Incubator



Catalog Number	TAL-DHC
Product Name	Dual Temperature Control Dry Bath
Temperature Range	Heating: Ambient+5℃—100℃ (both sides) Cooling: -10℃-100℃ (left side only)
Time Required	Heating: ≤ 15 min (from 20℃ rise to 100℃); Cooling: ≤ 25 min (decrease to 25℃ at room temperature which is below 26℃)
Temperature Stability @100℃	≤ ±0.5℃
Temperature Uniformity @40℃	≤ ±0.3℃
Temperature Displayed Precision	0.1℃
Temperature Control Time	1min to 99 hr 59 min
Highest Temperature	100℃
Power	170W
Dimension	W260 * D240 * H168mm
Weight	2.6 kg
Input	AC220V/110V 50/60Hz

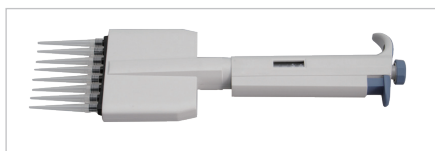
Product Introduction

10.4 Single-Channel Mechanical Pipettes



Catalog Number	Description
PS0002	0.1-2.5µl
PS0010	0.5-10µl
PS0050	5-50µl
PS0020	2-20µl
PS0100	10-100µl
PS0220	20-200µl
PS0250	50-200µl
PS1100	100-1000µl
PS1200	200-1000µl
PS5000	1000-5000µl



10.5 Eight-Channel Mechanical Pipette



Catalog Number	Description
P80050	5-50µl
P80020	2-20µl
P80100	10-100µl

Product Introduction

10.6 Vortex Mixers

Catalog Number	Description	Photo
VXH	Vortex Mixer	
KXH	Vortex Mixer(Speed Adjustable)	

10.7 Centrifuges

Catalog Number	Product Description	Photo
TAL-DL4.5K	4500 rpm Low Speed Centrifuge	
TAL-DL15K	15000 rpm High Speed Centrifuge	
TAL-DL7K	7000 rpm Mini Centrifuge	
TAL-DL5K	5000 rpm Mini Centrifuge	

Product Introduction

10.8 Bioendo™ Nymph X Water Purification System

Nymph X Water Purification System could transfer tap water into pure water and ultrapure water. Equipped with a pressure stabilizer and low flow-rate operating mode, the system can adapt to various source conditions without any extra pre-treatment necessary. The system also supports multiple water dispensing modes, and the precision of quantitative and quality-controlled dispense of water could reach $\pm 1\%$. Meanwhile, comprehensive monitoring could be done by the system to produce pure water and ultrapure water with stable and eligible quality.

Endotoxin concentration of water produced through Nymph X Water Purification System is lower than 0.001EU/ml. Such water could be used to culture cells, reconstitute culture medium and endotoxin-free buffer solution, dilute sample, refine protein and plasmid, wash and digest medical apparatus and instruments, etc.. And bag-tank storage is employed by the system, that you just need to change the inner water bags, and don't need to clean the water storage tank.

Integrated pretreatment-water tank unit will save space. Easy operation requires none extra training or instruction. Furthermore, the system could alarm and implement safeguard procedures at the same time. And replacement of all consumable items could be done by yourselves.



Catalog Number	Description
NYMPHX	Nymph X Water Purification System

Product Introduction

11. Endotoxin Testing Services and Other Services



We are expertise in endotoxin detection. We provide endotoxin testing services to customers from the pharmaceutical industry, medical device companies, research and environmental laboratories. Pharmaceutical-grade testing includes all of the validation steps required during a product validation program, the test complied with the requirement of Bacterial Endotoxins Test (BET) in China pharmacopoeia.

As a primary manufacturer of Lyophilized Amebocyte Lysate, we offer a wide range of endotoxin testing solutions to fit your requirements. From the simplicity of gel clot testing to the productivity of fully robotic systems, we cover the TAL evolutionary scale. We also provide 3Q services and the annul calibration of for the endotoxin detection instruments.

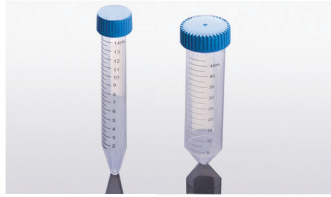
Catalog Number	Product Description
TEST001	Gel Clot Endotoxin Test
TEST002	Quantitative Endotoxin Assay
SER001	Test Validation
SER002	Exclusion of β -D-glucan Activity
SER003	Oven Validation Tests
SER004	Sample Container Study
SER3Q	3Q Service for BioTek Kinetic Incubating Microplate Reader
SER005	BioTek Kinetic Incubating Microplate Reader Calibration and Maintenance Services

Product Introduction

12. Non-pyrogenic Cell Culture Products

Bioendo provides pyrogen-free, endotoxin level $<0.005\text{EU/ml}$, DNase/RNase free culture accessories, includes cell culture plates, cell culture flasks, cell culture dishes, centrifuge tubes, serological pipettes ensure the success of your experiments.

12.1 Pyrogen-free Centrifuge Tubes



Product Features:

- ◆ Pyrogen-free Centrifuge tube is made from virgin polypropylene to meet the general requirements of the laboratory.
- ◆ Pyrogen-free, Endotoxin level $<0.005\text{EU/ml}$
- ◆ High strength non-toxic materials
- ◆ Printed clear graduations with marking area
- ◆ Gamma Radiation Sterilized
- ◆ 50ml Maximum RCF is 18000g, 15ml Maximum RCF is 12000g
- ◆ DNase/RNase free
- ◆ Autoclavable
- ◆ Temperature range is -20°C to 121°C
- ◆ Leak-proof
- ◆ Cap 50% longer ideal for avoiding contamination

Catalog Number	Description	Package
CT2515	Pyrogen-free Centrifuge Tube, 15ml	25 pcs/Pack
CT2550	Pyrogen-free Centrifuge Tube, 50ml	25 pcs/Pack

Product Introduction

12.2 Pyrogen-free Pipettes



Product Features:

- ◆ Pyrogen-free Centrifuge tube is made from virgin polypropylene to meet the general requirements of the laboratory.
- ◆ Pyrogen-free, Endotoxin level <0.005EU/ml
- ◆ High strength non-toxic materials
- ◆ Printed clear graduations with marking area
- ◆ Gamma Radiation Sterilized
- ◆ 50ml Maximum RCF is 18000g, 15ml Maximum RCF is 12000g
- ◆ DNase/RNase free
- ◆ Autoclavable
- ◆ Temperature range is -20°C to 121°C
- ◆ Leak-proof

Catalog Number	Description	Package
P0550	Pyrogen-free 5ml Pipette, Individual Wrap	50 pcs/Pack
P1050	Pyrogen-free 10ml Pipette, Individual Wrap	50 pcs/Pack
P2550	Pyrogen-free 25ml Pipette, Individual Wrap	50 pcs/Pack

BIOENDO™

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