















New Genomic Products

NeoTaq[™] DNA Polymerase

KOD Xpresss™ DNA Polymerase

Neo Gold™ Taq DNA Polymerase

RoBst[™] DNA Polymerase

EvaGen™ Green qPCR Master Mix

JetStart[™] Taq DNA Polymerase (Hot Start)

NesTaq[™] Ab Master Mix

New Products for RT-PCR

New Products for Gel Electrophoresis

New Products for Plasmid DNA Purification

New Proteomic Products

Normal Sera

Monoclonal Antibodies

Adjuvants

Fine Chemical

Protein for Research

Pre-Stained Protein Marker

Custom Oligonucleotide Synthesis

HPLC Purified Oligos (upto 80 bases)

PAGE Purified Oligos (upto 150 bases)

Modified Oligos (11-60mer) with HPLC Purification

5' Single Modification

5' – 3' Double Modification

Sanger Sequencing Services

New Custom Research Services



NEW GENOMIC PRODUCTS

EvaGen[™] Green qPCR Master

Description: >

EvaGen™ Green qPCR Master Mix is a ready-to-use 2x solution optimized for dye-based quantitative polymerase chain reaction (qPCR). The Pre-mix contains antibody-mediated hot-start DNA polymerase, dNTPs, MgCl2, EvaGreenTM dye, enhancers, and stabilizers for robust fluorescent signals. EvaGreenTM is a fluorescent nucleic acid dye with similar spectral properties to SYBR green I and more stable during PCR conditions, storage, and handling. A combination of antibody modified DNA polymerase with the optimized EvaGenTM Green qPCR master mix eliminates the nonspecific amplification of DNA in PCR reactions.

Characterization Studies: >

- Superior gene expression results.
- Enhanced efficiency, specificity, and sensitivity.
- High throughput quantitative PCR applications.
- High resolution melt curve analysis.
- Amplification of RNA by reverse transcriptionquantitative real time PCR (RT-qPCR).

Applications:

- Detection of pathogenic targets with high specificity and sensitivity.
- Nucleic acid amplification and gene expression profiling.
- Genotyping and genetic variation analysis.
- Detection of viral loads.
- Detection of copy number variations.

Ordering Information:

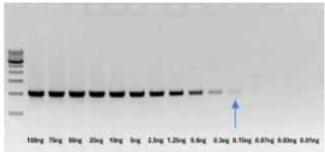
Cat. No	PI No.	Product Description
0606100021730	MME61L	EvaGen [™] Green qPCR
		Master Mix,
		(200 x 25 µL rxns)

KOD Xpress[™] DNA Polymerase

Description:

KOD Xpress[™] DNA Polymerase is derived from recombinant expression of a genetically modified form of thermostable DNA polymerase from hyperthermophilic archaeon Thermococcus kodakaraensis expressed in E. coli. The 94kDa enzyme catalyzes 5' to 3' polymerase activity, 3' to 5' exonuclease (proofreading) activity and has no 5' to 3' exonuclease activity. KOD XpressTM DNA Polymerase is ideal for standard PCR templates up to 14Kb.

Sensitivity:



Bacterial genomic DNA was used as template. Different concentrations of template were prepared from a $_{100}$ ng stock and $_{1}$ Kb gene was amplified using the optimized master mix and the amplification protocol. The bands were visualized by agarose gel electrophoresis. The KOD XpressTM DNA Polymerase amplified template at a concentration as low as $_{0.15}$ ng.

Features:

- High Fidelity DNA Polymerase.
- Fast extension speed and high proofreading activity.
- Robust amplification with minimum optimization.
- High accuracy and yields of PCR products.
- Amplification of long targets up to 14kb.

Applications: >

- Real-time PCR.
- End point PCR.
- Highly specific amplification of GC rich templates.
- Generation of blunt ended PCR product suitable for blunt - end cloning.



Amplification from different sources of template:
 E. coli, Human, Plant, Lambda and Plasmid DNA.

Ordering Information:

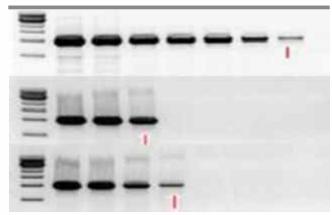
Cat. No	PI No.	Product Description
0605900021730	MME59L	KOD XpressTM DNA Polymerase (1U/μl), 100 Units
0605900031730	ММЕ59Ј	KOD Xpress [™] olymerase (2.5U/μl), 250 Units

NeoTaq[™] DNA Polymerase

Description:

NeoTaq[™] DNA Polymerase is derived from recombinant expression of a genetically modified form of thermostable DNA polymerase from thermophilic bacterium *Thermus aquaticus expressed in E.coli*. The 98kDa enzyme catalyzes 5' to 3' polymerase activity and lacks 3' to 5' exonuclease (proof reading) activity but has an inherent 5' to 3' exonuclease activity. The enzyme has been genetically modified to offer high sensitivity and amplification efficiency as compared to standard Taq DNA polymerases. NeoTaqTM DNA Polymerase is ideal for standard PCR templates up to 6.4 kb.

Sensitivity:



Bacterial genomic DNA was used as template for $_1$ kb gene amplification. Different concentration of template was prepared from a $_{100}$ ng stock and amplified using the optimized buffer and the amplification protocol and visualized by gel electrophoresis. NeoTaq $^{\text{TM}}$ DNA Polymerase amplified template at a concentration as low as $_{0.3}$ ng.

Features:

- High sensitivity
- Higher functional activity compared to conventional Taq DNA polymerase
- Robust amplification with minimum optimization
- Higher yields of PCR products
- Amplification of long targets up to 6.4 kb from genomic DNA.

Applications:

- Real-time PCR
- Highly specific amplification of GC rich templates
- End point PCR
- Amplification from different sources of template:
 E.coli, Human, Plant and Plasmid DNA
- Very low copy targets
- Multiplex primer reaction
- High throughout PCR Procedures

Cat. No	PI No.	Product Description
0605600021730	MME56L	NeoTaq [™] DNA Polymerase (1 U/µl), (Includes Enzyme, Assay buffers: 2 vials, 25mM MgCl2: 1 vial and Magic Solution: 1 vial)
0605600031730	MME56J	NeoTaq [™] DNA Polymerase (1 U/µl), (Includes Enzyme, 2 Assay buffers: 2 X 7 bottles, 25mM MgCl2: 1 bottle and Magic Solution: 1 bottle)
0605600041730	MME56B	NeoTaq [™] DNA Polymerase (1 U/µl), (Includes Enzyme, 2 Assay buffers: 2 X 7 bottles, 25mM MgCl2: 1 bottle and Magic Solution: 1 bottle)

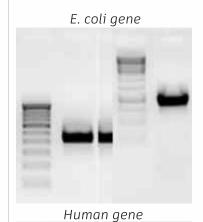
0605700021730	MME57L	NeoTaq [™] DNA Polymerase (3 U/µl), (Includes Enzyme, Assay buffers: 2 vials, 25mM MgCl2: 1 vial and Magic Solution: 1 vial)
0605700031730	ММЕ57Ј	NeoTaq [™] DNA Polymerase (3 U/µl), (Includes Enzyme, Assay buffers: 2 X 4 vials, 25mM MgCl2: 1 vial and Magic Solution: 1 vial)
0605700041730	MME57B	NeoTaq [™] DNA Polymerase (3 U/µl), (Includes Enzyme, 2 Assay buffers: 2 X 7 bottles, 25mM MgCl2: 1 bottle and Magic Solution: 1 bottle)
0605800021730	MME58L	NeoTaq [™] DNA Polymerase (5 U/µl), (Includes Enzyme, Assay buffers: 2 vials, 25mM MgCl2: 1 vial and Magic Solution: 1 vial)
0605800031730	ММЕ58Ј	NeoTaq [™] DNA Polymerase (5 U/µl), (Includes Enzyme, Assay buffers: 2 X 4 vials, 25mM MgCl2: 1 vial and Magic Solution: 1 vial)
0605800041730	MME58B	NeoTaq [™] DNA Polymerase (5 U/µl); (Includes Enzyme, 2 Assay buffers: 2 X 7 bottles, 25mM MgCl2: 1 bottle and Magic Solution: 1 bottle) 5000Units

NesTaq[™] Ab Master Mix

Description:

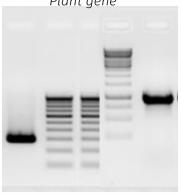
NesTaq[™] Ab Master Mix is a premixed, ready-to-use 2x solution containing antibody-mediated hot-start NeoTaqTM DNA polymerase, dNTPs, MgCl2, enhancers and stabilizers for efficient amplification. NesTaqTM Ab Master Mix prevents non-specific product formation and allows polymerase chain reactions (PCR) to proceed at ambient temperature, which has been achieved using antibody modified polymerase.

Amplification with multiple template sources:



Genes of different sizes from various sources such as Escherichia coli (E. coli), plant, and human were amplified using $\mathsf{NesTaq}^{\scriptscriptstyle\mathsf{TM}}$ Ab PCR master mix and six parallel amplifications were performed. The PCR products were analyzed under UV light after agarose gel electrophoresis. Amplification of the target gene was observed in all the samples.

Plant gene



Features:

- Monoclonal antibody reversibly blocks the polymerase activity.
- Amplification of wide range of DNA templates.
- Enhanced PCR efficiency, specificity, and sensitivity.
- Amplification of long targets up to 6.4kb genomic DNA.
- Detection of low copy number of target DNA.

Applications: >

- Detection of infectious agents in patient samples, genetic analysis, and forensics.
- High throughput PCR screening.
- PCR-based DNA fingerprinting.
- Microarray analysis.

Ordering Information:

 $(25 \mu l/rxn)$

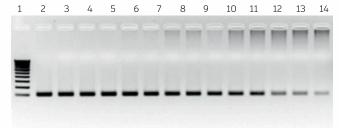
Cat. No PI No. Product Description 0606300021730 MME63L NesTaq™ Ab Master Mix, (2X), 1 x 100 rxns (25 μl/rxn) 0606300031730 MME63J NesTaq™ Ab Master Mix (2X), 5 x 100 rxns

JetStart[™] Taq DNA Polymerase

Description: >

NesTaq[™] Ab Master Mix is a premixed, ready-to-use 2x solution containing antibody-mediated hot-start NeoTaqTM DNA polymerase, dNTPs, MgCl2, enhancers and stabilizers for efficient amplification. NesTaqTM Ab Master Mix prevents non-specific product formation and allows polymerase chain reactions (PCR) to proceed at ambient temperature, which has been achieved using antibody modified polymerase.

Sensitivity:



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Lane 1	100bp ladder	Lane 6	10ng	Lane 11	0.3ng
Lane 2	100ng	Lane 7	5ng	Lane 12	0.15ng
Lane 3	75ng	Lane 8	2.5ng	Lane 13	0.07ng
Lane 4	50ng	Lane 9	1.25ng	Lane 14	0.03ng
Lane 5	25ng	Lane 10	0.6ng	Lane 15	0.01ng

Features:

- Monoclonal antibody reversibly blocks the polymerase activity.
- High functional activity compared to commercial.
- Increased PCR product yield.
- Amplification of long targets up to 6.4kb genomic DNA.
- Enhanced specificity and sensitivity.
- Amplification of low-copy targets.

Applications: >

- Suitable for Real-time and end-point PCR.
- Development of master mix.
- One step Reverse Transcriptase- PCR.
- Amplification of templates from different sources: Escherichia coli (E. coli), Human, Plant and Plasmid DNA.

1	Cat. No	PI No.	Product Description
	0606200021730	MME62L	JetStartTM Taq DNA Polymerase - Ab modified, (Includes Enzyme, Assay buffers: 2 vials, 25mM MgCl ₂ : 1 vial and Magic Solution: 1 vial)
	0606200031730	ММЕ62Ј	JetStartTM Taq DNA Polymerase - Ab modified, (Includes Enzyme, Assay buffers: 2 X 4 vials, 25mM MgCl ₂ : 1 vial and Magic Solution: 1 vial)

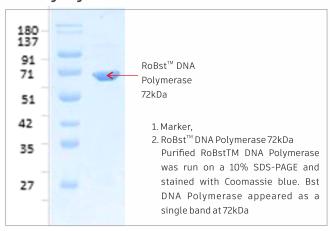


RoBst[™] DNA Polymerase

Description:

RoBst[™] DNA polymerase I (large fragment) from Bacillus stearothermophilus (Bst), is a robust polymerase used for various isothermal amplification reactions. The recombinant enzyme is prepared from an Escherichia *coli (E.coli)* strain containing the gene encoding for RoBst[™] DNA Polymerase. Due to its strand displacement activities, the enzyme is used for the implementation of loop- mediated isothermal amplification (LAMP). The thermostable enzyme detects low sensitivity nucleic acids with higher efficiency and specificity. The enzyme with a molecular weight of 72kDa catalyses 5' to 3' Polymerase activity and lacks 5' to 3' exonuclease activity.

Purity by SDS-PAGE:



Features:

- Efficient strand displacement activity.
- Rapid amplification rate compared to conventional PCR.
- Higher processivity, increased salt tolerance and catalytic efficiency.
- Suitable for amplification of low concentration of templates.

Applications: >

- Purity: >95% by SDS-PAGE.
- Nuclease assays: No detectable endonuclease, exonuclease, and RNase activity.
- E. coli host contamination: No
- E. coli DNA contamination was detected in qPCR with specific primers targeting 16S rRNA gene.
- Functional assay: RoBst[™] DNA polymerase tested extensively for its reproducible performancein LAMP assays.

Ordering Information:

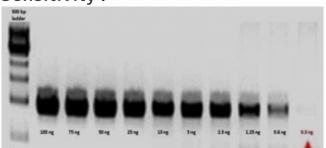
Cat. No	PI No.	Product Description
0606000021730	MME60L	RoBst [™] DNA Polymerase (8 U /µl)
0606000021730	ММЕ60Ј	RoBst [™] DNA Polymerase (8 U /µl)

Neo Gold[™] Taq DNA Polymerase

Description:

Neo Gold™ Taq DNA Polymerase is derived from recombinant expression of a genetically modified form of thermostable DNA polymerase from thermophilic bacterium Thermus aquaticus expressed in E. coli. The 98kDa enzyme catalyzes 5' to 3' polymerase activity and lacks 3' to 5' exonuclease (proof reading) activity but has an inherent 5' to 3' exonuclease activity. The enzyme has been genetically modified to offer high sensitivity and amplification efficiency as compared to standard Taq DNA polymerases. Neo Gold™ Taq DNA Polymerase is ideal for standard PCR templates up to 6.4 kb.

Sensitivity:



Features:

Bacterial genomic DNA was used as template for 1kb gene amplification. Different concentration of template was prepared from a 100ng stock and amplified using the optimized buffer and the amplification protocol and visualized by gel electrophoresis. Neo GoldTM Taq DNA Polymerase amplified template at a concentration as low as 0.3 ng.

Features:

- High sensitivity
- Higher functional activity compared to conventional Tag DNA polymerase
- Robust amplification with minimum optimization
- Higher yields of PCR products
- Amplification of long targets up to 6.4 kb from genomic DNA

Applications: >

- Real-time PCR
- Highly specific amplification of GC rich templates
- End point PCR
- Amplification from different sources of template: E. coli, Human, Plant and Plasmid DNA
- Very low copy targets
- Multiplex primer reaction
- High throughout PCR Procedures

Ordering Information:

Cat. No	PI No.	Product Description
0605610021730	MME56GL	Neo Gold TM Taq DNA Polymerase (1 U/μl), 250 Units (Includes Enzyme, Assay buffers: 2 vials, 25mM MgCl ₂ : 1 vial and Magic Solution: 1 vial)
0605610031730	MME56GJ	Neo Gold TM Taq DNA Polymerase (1 U/ μ l), 1000 Units (Includes Enzyme, Assay buffers: 2 X 4 vials, 25mM MgCl ₂ : 1 vial and Magic Solution: 1 vial)

0605710021730	MME57GL	Neo Gold™ Taq DNA
		Polymerase (3 U/μl),
		250 Units (Includes Enzyme
		Assay buffers: 2 vials, 25mM
		MgCl ₂ : 1 vial and Magic Solution 1 vial)
0605710031730	MME57GJ	Neo Gold™ Taq DNA
		Polymerase (3 U/μl),
		1000 Units (Includes
		Enzyme, Assay buffers: 2 X 4
		vials, 25mM MgCl ₂ : 1 vial and Magic Solution: 1 vial)

Trichrome StepUp[™] DNA Ladders and Rulers

Features:

- Ladder or Rulers with three tracking Dyes.
- Three tracking Dyes are Bromophenol Blue, Xylene cyanol FF and Orange G.
- Bromophenol Blue migrates through 1% agarose gel at approximately the same rate as linear dsDNA 300bp on 1% agarose gel. Xylene cyanol FF migrates approximately the same rate as linear dsDNA at 4Kb in length and Orange G migrates approximately the same rate as linear dsDNA at 50bp in length.

Highlights:

- Ready to use Ladder/ Ruler
- Quantitative Ladder / Ruler
- The Orange G dye indicates the position of the lower DNA fragment (below 50bp) on 1% agarose gel
- No masking of dye with the DNA.
- Formulated 3 different tracking dyes.

Cat. No	PI No.	Product Description
2663180501730	TMBD31	Trichrome StepUp™ 50bp DNA Ladder, Ready To Use (100 loads), 50µg
2662680501730	TMBD13	Trichrome StepUp™ 100bp DNA Ladder, Ready To Use (100 loads), 50µg



2663080501730 TMBD30	Trichrome StepUp™ 250bp DNA Ladder, Ready To Use (100 loads), 50µg	62780501730 TMBD27	Trichrome StepUp™ Low Range DNA Ruler Plus, Ready To Use (100 loads), 50µg
2661980501730 TMBD19	Trichrome StepUp™ 500bp DNA Ladder, Ready To Use (100 loads), 50µg	62880501730 TMBD28	Trichrome StepUp™ Medium Range DNA ruler (100 loads), Ready To Use 50µg
2662080501730 TMBD20	Trichrome StepUp [™] 1 kb DNA Ladder, Ready To Use (100 loads), 50µg	52980501730 TMBD29	Trichrome StepUp™ High Range DNA Ruler, Ready To Use (100 loads), 50µg
2662180501730 TMBD21	Trichrome StepUp™Supermix DNA Ladder, Ready To Use (100 loads),50µg	63280501730 TMBD32	Trichrome Quantum™ PCR Marker Low Range, Ready To Use (100 loads), 50µg
2652380501730 TMBD23	Trichrome StepUp™ Low Range DNA Ruler, Ready To Use (100 loads), 50µg	63380501730 TMBD33	Trichrome Quantum™ PCR Marker Medium Range, Ready To Use (100 loads), 50µg
2662480501730 TMBD24	Trichrome StepUp™ 20bpDNA Ruler, Ready To Use (100 loads), 50µg		

PLASMID DNA PURIFICATION

GeneiUltrapure[™] Plasmid Midi Purification Kit

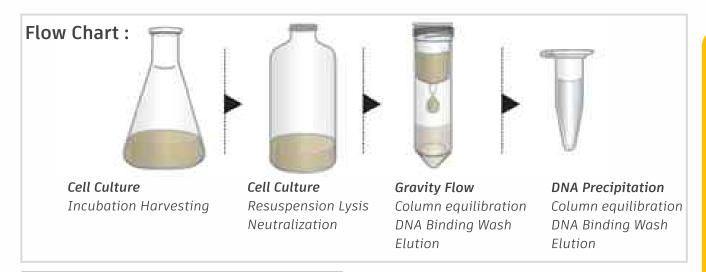
Description: >

The GeNei™ Plasmid DNA Purification Midi Kit is designed for the isolation of purified plasmid DNA with anion-exchange technology. This kit uses a gravity-flow column that increases efficiency of DNA binding capacity. Plasmids can be purified by directly loading alkaline lysed cell cultures onto gravity flow Anion Exchange Columns. It is designed for the easy and efficient extraction of pure plasmid DNA. The isolated DNA is ready for enzymatic reactions or molecular biology applications.

Specifications: >

Principle	Ion exchange chromatography (Gravity-flow column)
Sample Source	Plasmid DNA From <i>E Coli</i>
Plasmid Size	3kb-10kb
Sample Size	120 ml of bacterial culture
High Copy Yield	400-450 ug
Low Copy Yield	100-150 ug
Hands On Time	60 Minutes
Column Binding Capacity	≤650 µg DNA/Column





Characteristics:

High Yield: Plasmid DNA midi extraction methods typically yield a relatively large amount of high-quality plasmid DNA, making them suitable for applications requiring a substantial quantity of DNA.

Purity: Midi-scale plasmid DNA extraction methods often result in highly purified DNA, equivalent to Cs-Cl gradient free from contaminants such as genomic DNA, RNA, and proteins, which is crucial for downstream applications.

Cost-Effectiveness While midi-scale extraction may require slightly more resources compared to mini-scale extraction, it is more cost-effective when large quantities of plasmid DNA are needed, as it reduces the need for repeated extractions.

Time Efficiency: Midi-scale plasmid DNA extraction methods are time-efficient compared to mini-scale methods, as they allow for the isolation of larger amounts of DNA in a single extraction, reducing the overall processing time.

Versatility: Midi-scale plasmid DNA extraction methods are versatile and can be adapted to isolate various types of plasmids, including high-copy or low-copy plasmids, as well as plasmids of different sizes and complexity

Applications:

Molecular Cloning: Plasmid DNA extraction is often used in molecular cloning experiments where researchers need to insert foreign DNA into plasmids for various purposes such as gene

expression studies, protein production, or genetic engineering.

Gene Therapy: Plasmid DNA can be used as a vector for gene therapy applications, where therapeutic genes are inserted into plasmids and delivered into target cells to treat genetic disorders or diseases.

Recombinant Protein Expression: Plasmid DNA extraction is essential for producing recombinant proteins in bacteria or other expression systems. Researchers can clone the gene of interest into a plasmid vector and then express the protein in bacterial cells.

Transgenic Organism Generation: Plasmid DNA extraction is used in the generation of transgenic organisms by introducing foreign genes into the genome of plants or animals.

PCR Template Preparation: Plasmid DNA can serve as a template for PCR (Polymerase Chain Reaction) amplification, enabling the rapid and efficient amplification of specific DNA sequences.

Cat. No	PI No.	Product Description
612116100011730	KT161S	GeneiUltrapure™ Plasmid Midi Purification Kit
612116100021730	KT161	GeneiUltrapure™ Plasmid Midi Purification Kit



NEW PROTEOMIC PRODUCTS

Guinea Pig Serum

Description:

Guinea Pig Serum are obtained from non-haemolyzed blood that is collected from healthy animals. The blood is centrifuged, and the serum is collected. This product was aseptically filtered through a 0.22-micron filter into clean, presterilized containers. And supplied in frozen condition. Each manufactured batch is rigorously controlled, from the collection of serum and throughout all stages of its treatment and production through to final packaging on our premises.

Applications:

Guinea pig serum is suitable blocking agent and negative control in immunoassays. Guinea Pig Serum is used as a supplement to cell culture media. Guinea Pig Serum is also suitable for use as a component of bioassays, immunoassays, or enzyme assays. Guinea Pig Serum provides a broad spectrum of macromolecules, carrier proteins for lipoid substances and trace elements, attachment and spreading factors, low molecular weight nutrients, and hormones and growth factors that promote cell growth and health. These serums provide excellent growth promoting components for tissue culture and microbiological organisms. Guinea Pig Serum is ideal for investigators in Cancer, Immunology, and Cell Biology research.

Store: -20°C Store in smaller aliquots to avoid repeated freeze-thaw cycles.

CD4 Monoclonal Antibody

Description: >

The CD4 antigen is involved in the recognition of MHC class II molecules and is a co-receptor for HIV.

CD4 is primarily expressed in a subset of Tlymphocytes, also referred to as T helper cells, but may also be expressed by other cells in the immune system, such as monocytes, macrophages, and dendritic cells. At the tissue level, CD4 expression may be detected in thymus, lymph nodes, tonsils, and spleen, and in specific regions of the brain, gut, and other non-lymphoid tissues. CD4 functions to initiate or augment the early phase of T-cell activation through its association with the T-cell receptor complex and protein tyrosine kinase, Lck. It may also function as an important mediator of direct neuronal damage in infectious and immunemediated diseases of the central nervous system. Multiple alternatively spliced transcripts have been identified in this gene.

Applications: >

Antibodies that detect CD4 can be used in several scientific applications, including Flow Cytometry, Immunohistochemistry, Western Blot, Immunocytochemistry and Immunoprecipitation. These antibodies target CD4 in Human, Mouse, Rat, Canine and Avian samples. These antibodies have been verified by Relative expression and Cell treatment to confirm specificity to Cd4.

Western blot titer: 1:10 - 1:100

Western blot analysis of CD4 was performed by loading 20 μ g of Jurkat and CTLL cell lysates onto an SDS polyacrylamide gel. Proteins were transferred to a PVDF membrane and blocked at 4°C overnight. The membrane was probed with a CD4 monoclonal at a dilution of 1:20 overnight at 4°C, washed in TBST, and probed with an HRP-conjugated secondary antibody for 1 hr at room temperature in the dark. Chemiluminescent detection was performed using ECL Western Blotting Substrate.

Store: -20°C
•Store in smaller aliquots to avoid repeated freeze-thaw cycles.



Thimerosal

Description:

Thiomersal (also known as thimerosal, Merthiolate) is an organomercurial derivative of ethyl mercury that has been used very widely, and for a very long time, as a preservative in vaccines in their bulk formulations. Its primary purpose has been to prevent microbial growth in the product during storage and use. It has also been used during vaccine production both to inactivate certain organisms and toxins and to maintain a sterile production line.

Store: Room temperature (15° - 30° C).

Cat. No	PI No.	Product Description
3110482501730	NS2	Guinea Pig Serum, 50ml
3110492501730	MAB1	CD4 Monoclonal Antibody, 200µl
1640280401730	FIA-M	Modified Freund's Incomplete Adjuvant, 100ml
1640180401730	FCA-M	Modified Freund's Complete Adjuvant, 100ml
2131600011730	FC104	Thimerosal, 1kG