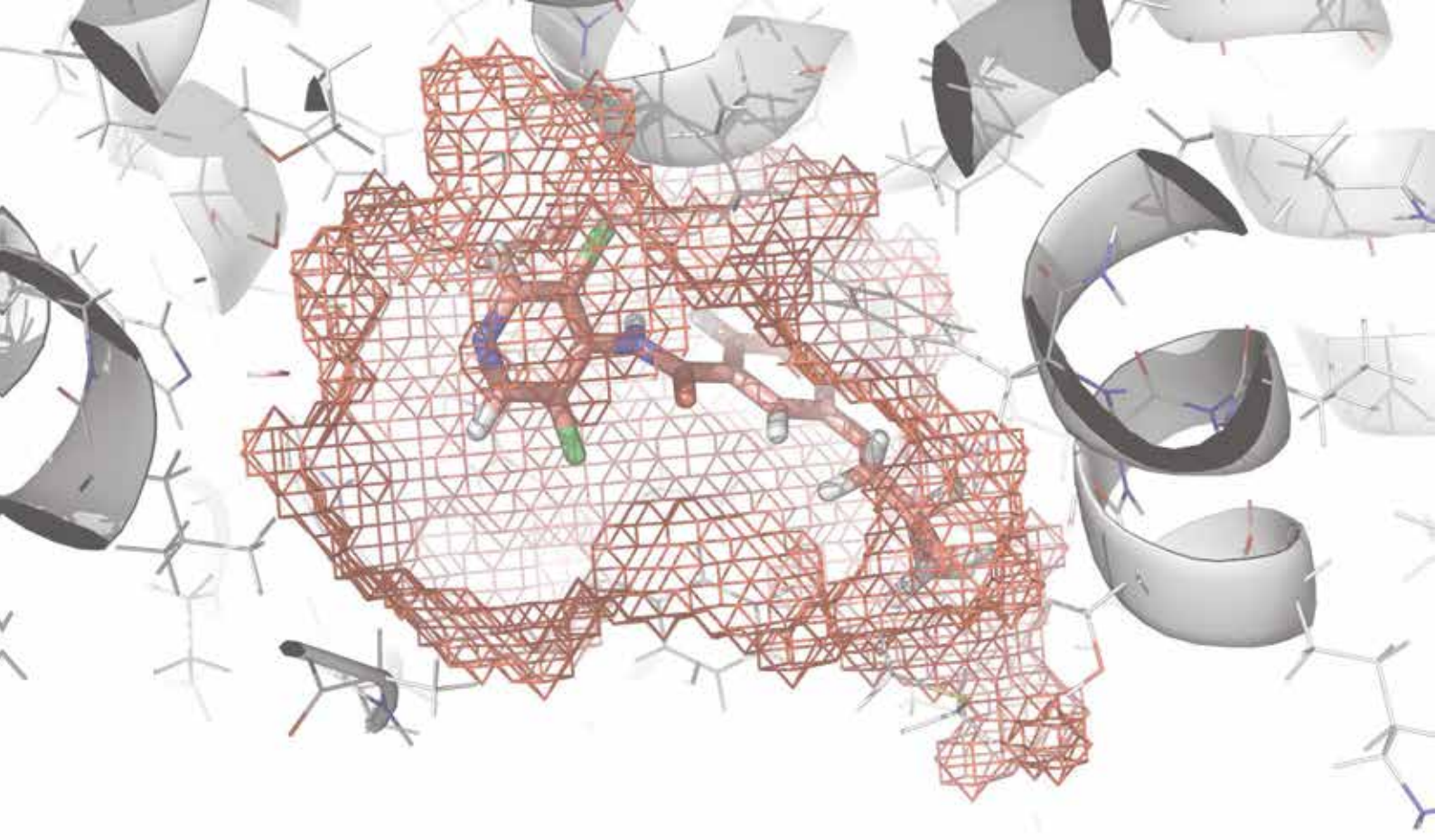
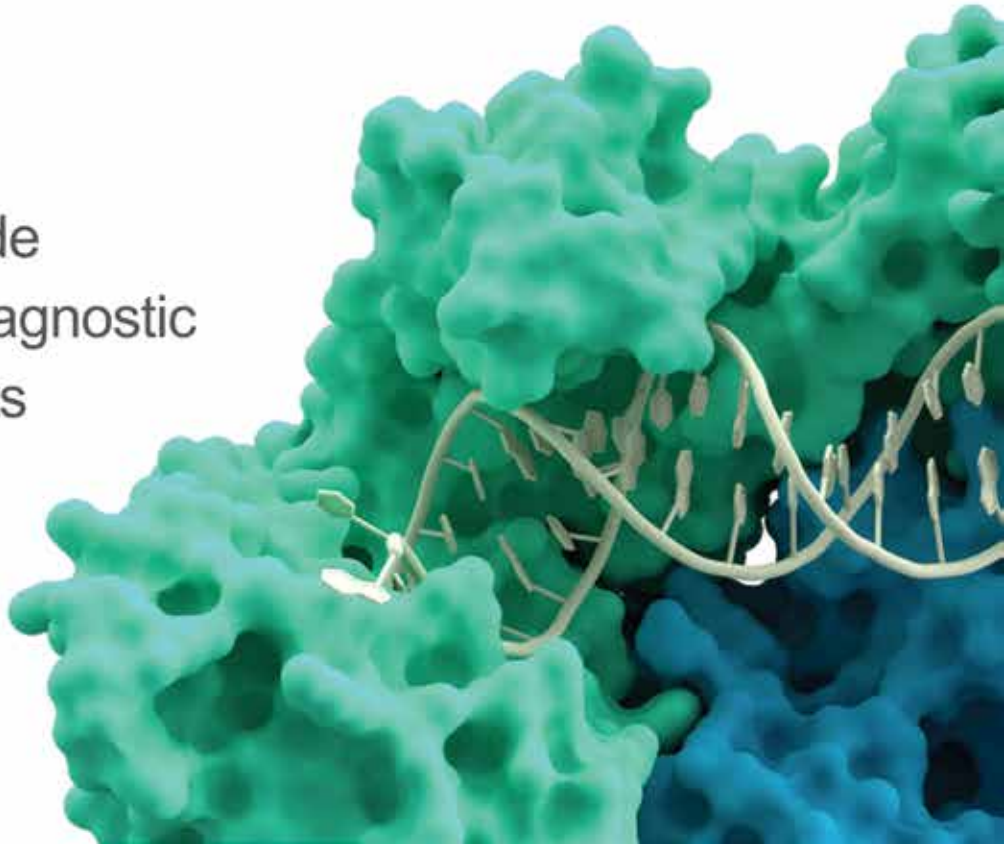


Parstous

Innovation is our Priority

Highly Pure
Economic
Molecular Grade
Research & Diagnostic
Reagents & Kits



About Us:

Our company is focused on providing our customers superior quality molecular biology reagents and kits for research and development. Pars Tous' headquartered is in Toos Industrial Zone, Mashhad, Iran and has an office in Tehran.
Our innovative formula for these products undoubtedly, yield the same results as products from leading company in the life sciences.

RT-PCR Enzymes & Reagents

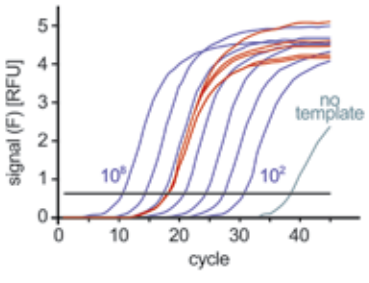
Easy cDNA Synthesis Kit

Easy cDNA Synthesis kit contains all necessary components for conversion of total RNA or mRNA to the single stranded cDNA. The 2X Buffer mix solutions contains, RT buffer, 1mM dNTP mixture, 8mM MgCl2, Oligo d(t)16, Random hexamer and stabilizer. Enzyme mix contains thermostable H-minus MMLV, RNase Inhibitor and stabilizer.

Advantages:

- **Reduction of technical errors.**
- **Easy protocol.**
- **Higher reaction temperature than conventional MMLV.**
- **High yield and sensitive.**

2X SYBR® Green Real Time PCR



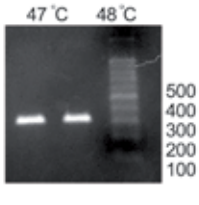
This product is a very sensitive and easy to use for real-time quantitative analysis of DNA and cDNA targets. This product is based on the SYBR Green I and a dual Hot-start Taq (chemically modified and anti taq) plus the pre-optimized buffer solution.

Thermo-resistant H⁻MMuLV RT

Recombinant, genetically modified RNA-dependent DNA polymerase, chromatography purified, no RNase H activity, Optimal acivity at 47 °C. Reverse Transcriptase has no RNase H activity. Therefore, degradation of RNA does not occur during first strand cDNA synthesis, resulting in higher yields of full-length cDNA from long templates compare to other reverse transcriptases.

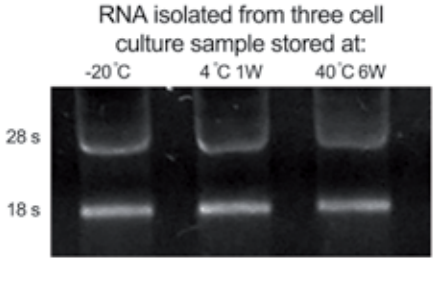
Advantages:

- **Optimal activity at 47- 48°C.**
- **RT of RNAs with a high degree of secondary structure.**
- **No RNase H activity.**
- **More stable than Wild type MMuLV.**



RNA Fix Solution

RNAfix™ is an aqueous, non toxic, tissue and cells storage solution intended for the preservation of RNA for later isolation. It is a preservation solution that allows recovery of intact RNA from tissues and cell culture. Samples in RNAfix™ solution can be stored indefinitely at -20 °C with no RNA degradation. RNAfix™ solution can be used for the storage of tissues, cells, bacteria and yeasts. RNAfix™ compatible with most RNA isolation methods.



PCR Enzymes & Reagents

Taq DNA Polymerase

This product is a chromatography highly purified enzyme with an optimized buffer to give you a specific band. It is provided with an exclusive 10 X reaction buffer to improve sub-optimal PCR caused by templates, high degree of secondary structure or GC-rich reagions.

Advantages:

- **Highly chromatography purified.**
- **E. Coli DNA free.**
- **Suitable for conventional PCR and TA cloning PCR.**

Pfu DNA Polymerase

Recombinant highly purified protein of Pfu DNA polymerase exhibits 3´ > 5´ proofreading activity, resulting in over 10-fold higher PCR fidelity than possible with Taq DNA Polymerases.

Advantages:

- **Pure recombinant enzyme.**
- **Over 10-fold higher PCR fidelity than Taq.**
- **The enhanced performance by new formula buffer.**

KlenTaq DNA Polymerase

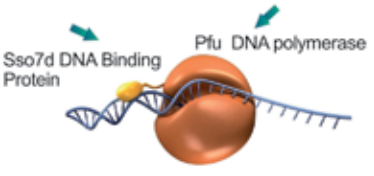
KlenTaq DNA Polymerase lacks the N-terminal portion of the gene, encoding Thermus aquaticus (Taq) DNA polymerase, leaving a highly active and even more thermal stable DNA polymerase activity. This enzyme keeps significant activity after exposure to 99 °C.

Advantages:

- **Wide range of optimal MgCl2 concentration.**
- **Two time lower error rate than Taq.**
- **Amplicons are T/A Cloning compatible.**
- **Mutation analysis with mutation-specific oligonucleotides.**

Phusion DNA Polymerase

A chimeric Pfu which has a DNA binding protein at the N-terminal portion of the gene. This enzyme keeps significant activity after exposure to 99 °C or repeated exposure to 98 °C with more processivity and extention rate than Pfu DNA polymerase.



Advantages:

- **Faster than Pfu.**
- **Amplification of GC rich templates .**
- **It is suitable for PCR and primer extension reaction that requires high fidelity when the PCR fragment is relatively higher than 3kb.**

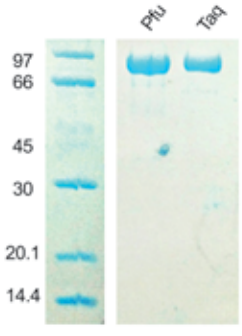


Fig: Analysis of Parstous Taq and Pfu DNA polymerase on 12.5% polyacrylamide gel electrophoresis.
Pfu shows sharp band with a Molecular Weight 90 kDa. Taq indicates a monomer protein with Molecular Weight 94 kDa.

2X Taq PCR Master Mix

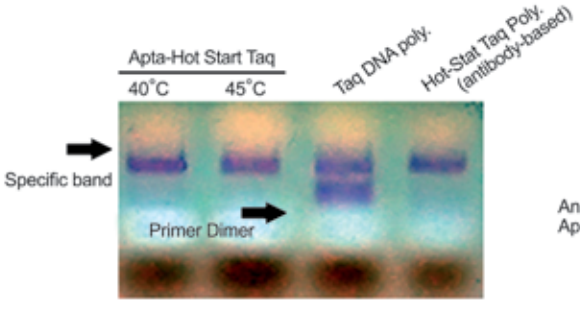
It contains Taq DNA Polymerase, reaction buffer, dNTPs, protein stabilizer, 2 mM $MgCl_2$, and optimizes the convenience to use by adding sediment for electrophoresis and 2X solution of loading dye.

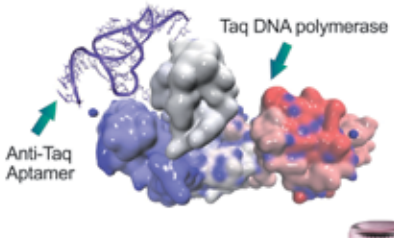
Advantages:

- **Highly resistant to bad storage or frequent freeze and thaw.**
- **Most convenient way to perform a PCR.**
- **Reduction of technical errors.**
- **No need to add loading dye for electrophoresis.**
- **More economic.**

Apta-Hot Start Taq DNA Polymerase

This is a mixture of Taq DNA polymerase and a temperature sensitive, aptamer -based inhibitor. The inhibitor binds reversibly to the enzyme, inhibiting polymerase activity at temperatures below 40 °C, but releases the enzyme during normal PCR cycling conditions.





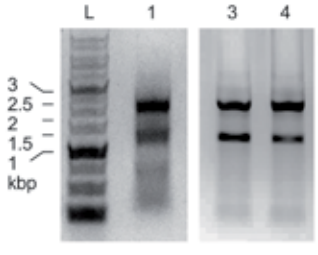
Advantages:

- **Reduction of primer dimers.**
- **No inactivation time.**
- **Avoid non-specific bands.**
- **More stable than antibody based Hot-start taqs.**
- **More economical than antibody based Hot-start taqs.**

DNA & RNA Extraction Kits

Total RNA extraction Kit

This kit uses reversible binding properties of a silica-based column. The sample is lysed first under highly denaturing phenolic buffer condition to protect tissue RNA from degrading. Tissue RNA Kit allows simultaneous processing of multiple tissue samples in less than 30 min. The procedure completely removes contaminants and enzyme inhibitors making RNA isolation fast, convenient, and reliable.

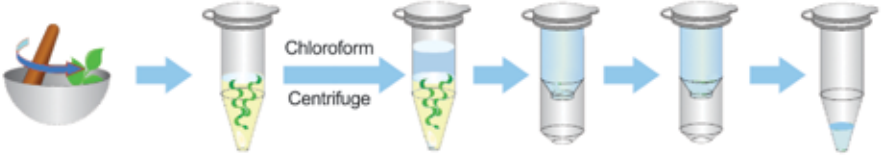


Applications:
RNA extraction from animal tissues, cell culture and blood.

L: 1 kbp DNA Ladder
1: 10 µl RNA from Blood
2: 5 µl RNA from J774 cells
3: 5 µl RNA from Hela cells

Plant RNA extraction Kit

Plant RNA Kit provides a convenient spin column-based method for the isolation of total RNA from a variety of plant samples. Samples should be homogenized in lysis buffer before starting the process. All the contaminants including polysaccharides and phenolic compounds are effectively removed. Purified RNA can be used for most downstream applications such as RT-PCR, Northern blot analysis, differential display, and poly A+ RNA selection.



Blood genomic DNA extraction Kit

A silica-membrane-based DNA purification for up to 200 µl fresh or frozen human whole blood.xpect yields of 4–10 µg depending on the white blood cell count of the sample. High-quality DNA without any organic extraction or alcohol precipitation.

Applications:
Genomic DNA extraction from human and animal blood, serum and plasma.

- **Easy protocol.**
- **No precipitation step.**
- **Preparation time for a single sample is less than 30 minutes.**
- **Purified DNA is fully digestible with all restriction enzymes tested, and is completely compatible with downstream applications.**

Tissue genomic DNA extraction Kit

This kit employs proteinase K and chaotropic salt to lyse cells and degrade protein, allowing DNA to be easily bound by the glass fiber matrix of the genomic DNA spin column.

Applications:
Genomic DNA extraction from liver, kidney, brain, and many animal tissues.

- **No precipitation step.**
- **Preparation time for a single sample is less than 45 minutes.**
- **Purified DNA is fully digestible with all restriction enzymes tested and is completely compatible with downstream applications.**

Bacteria DNA extraction Kit

This kit is designed for the rapid spin column preparation of genomic DNA from 2 x 109 viable bacterial cells (between 0.5 and 1.0 mL of culture). This kit can be used for both Gram-negative and Gram-positive bacteria including Escherichia coli and Bacillus cereus. Purified genomic DNA is of an excellent quality and yield.

Advantages:
- **Rapid and convenient spin column protocol.**
- **High yield, high quality DNA for sensitive downstream applications including sequencing, PCR, qPCR and more.**

Plant DNA extraction Kit

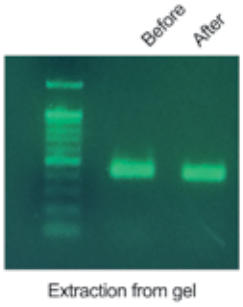
Plant DNA Kit provides a simple, efficient column-based method for the isolation of genomic DNA from a wide variety of plant materials, without the need for hazardous reagents such as phenol.

Advantages:
- **Fast and Convenient: Kit includes all necessary components High-performance – extraction of high-quality DNA, ideal for use in all downstream applications.**
- **Efficient: Optimized lysis conditions and column matrix for improved recovery of genomic DNA from a wide range of plant samples.**

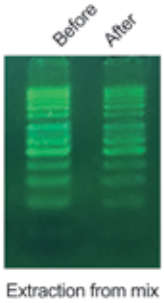
DNA extraction from agarose gel and PCR products

This kit provides spin columns, buffers, and collection tubes for silica-membrane-based purification of DNA fragments >100 bp from gel and reaction mixtures. DNA of up to 10 kb is purified using a simple and fast procedure in
30–50 µl elution buffer.

Applications:
Extraction of DNA fragments from PCR reactions, digestion reations and agarose gel.



Extraction from gel

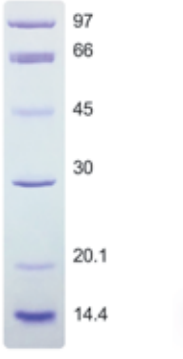


Extraction from mix

Protein Assay

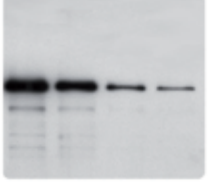
Low Molecular Weight Protein Marker

The Low Molecular Weight Protein Marker for SDS electrophoresis is a liquid mixture of six purified proteins ranging from 14,400 to 97,000 Dalton when used in denaturing polyacrylamide.



Chemiluminescence Detection kit

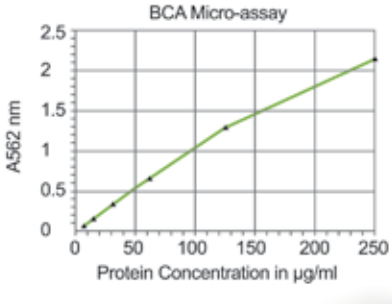
This kit is recommended for horseradish peroxidase (HRP)-based Western Blotting procedures. Provided as a two-component system, Solution A and Solution B. The chemiluminescent light emitting can be quantitatively detected via regular autoradiograph film, CCD camera, or chemiluminescence reading device.



Suitable for western blotting and dot blot
More sensitive than DAB and Alpha-naphtol

BCA (Bicinchoninic acid) Protein Quantification Kit

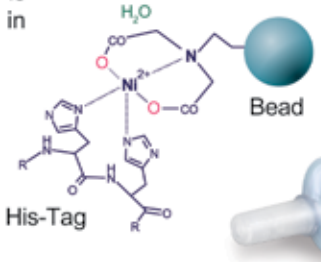
BCA kit utilizes a copper(Cu2⁺) salt which can be reduced to the cuprous state by protein(s). The BCA Protein Assay is suitable for measuring of protein concentration in the range of 5-1000 µg/ml.

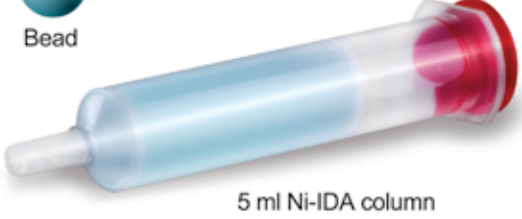


- **Less protein-to-protein variation.**
- **Less affected by ionic and nonionic detergents.**
- **Detection down to 5µg/ml with the enhanced protocol.**

Ni-IDA Column for purifcation of His-tag proteins

Ni-IDA beads enable fast and convenient purification of recombinant polyhistidine-tagged proteins by immobilized metal ion affinity chromatography (IMAC). This gel is rechargable for more than ten times without reduction in the yield.





5 ml Ni-IDA column

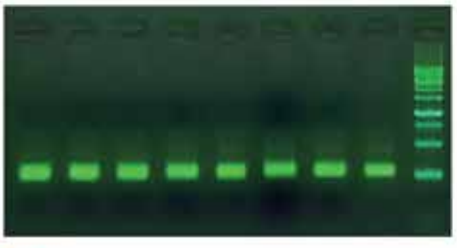
- **Purification in non-denaturing condition.**
- **Purification in denaturing condition.**
- **High yield and specific.**
- **Very economic.**

Parstous

Electrophoresis Products

DNA Green Viewer ™

DNA Green Viewer™ is a new and safe nucleic acid stain, an alternative to the traditional ethidium bromide (EB) stain for detecting double-stranded DNA, single-stranded DNA, and RNA in agarose gels



- **DNA Green Viewer™ is as sensitive as EB**
- **Most economic safe nucleic acid stain**

6 X loading DuoColor ™

6 X loading TriColor ™

The dye is used for loading DNA samples into gel electrophoresis wells and tracking migration during electrophoresis. See the below detail for an estimation of the migration distance of the tracking dyes contained in TriColor 6x loading dye.

- **Orange G dye runs faster than Bromophenol blue or xylene cyanol FF dyes in standard agarose gels.**
- **Orange G dye migrates with DNA between 10 and 20 nucleotides long.**

10 X TBE buffer

50 X TAE buffer

Highly pure reagents have been also provided for preparation of electrophpresis buffers. These buffers are used to prepare agarose gels and as an electrophoresis running buffer for the separation of double-stranded DNA in agarose and polyacrylamide gels.

100 bp Ladder

The 100 bp DNA Marker consists of 11 DNA fragments ranging in size from reference on agarose gels, the 500 bp and 1000 bp are two to three times brighter than the other bands.

Cytokine Elisa Kits

- Mouse IL-4 ELISA kit
- Mouse IL-10 ELISA kit
- Mouse IFN-γ ELISA kit
- Mouse IL-12 (p70) ELISA kit
- Mouse IL-17A ELISA kit
- Mouse IgE ELISA kit

Parstous' Mouse Cytokine ELISA assays are ready-to-use kits for the quantification of the Mouse Cytokine in biological fluids such as serum, plasma and cell cultures. ELISA stripes have been coated with capture anti-Cytokine (mAb). Unopened pack would be stabilized for at least one year at 4 ˚C. Captured Cytokine would be detected by biotinylated anti-Cytokine (mAb) followed by streptavidin-HRP. Addition of TMB will be resulted in a colored substrate with an intensity that is directly proportional to the concentration of Cytokine in the sample. The concentration of the Cytokine in the sample is determined by comparison to standard curve from a serial dilution of purified Cytokines.

Contents of a ready to use kit:

- **Precoated 96-well strip plate.**
- **Mouse Cytokine standard.**
- **Biotinylated detection antibody.**
- **Streptavidin-HRP.**
- **Diluent buffer concentrate.**
- **Wash buffer concentrate 10X.**
- **TMB substrate.**
- **Stop solution.**

Recombinant Proteins

- λ-exonulease
- Mouse IL-2
- Mouse IL-4
- Mouse IFN-γ
- Mouse TGF-β
- Mouse IL-33
- Mouse TNF-α
- Human TNF-α

Source: Mouse cytokines were expressed in E. coli expression system as His-tag fusion protein.

Purity: >95%, as determined by Coomassie stained SDS-PAGE.

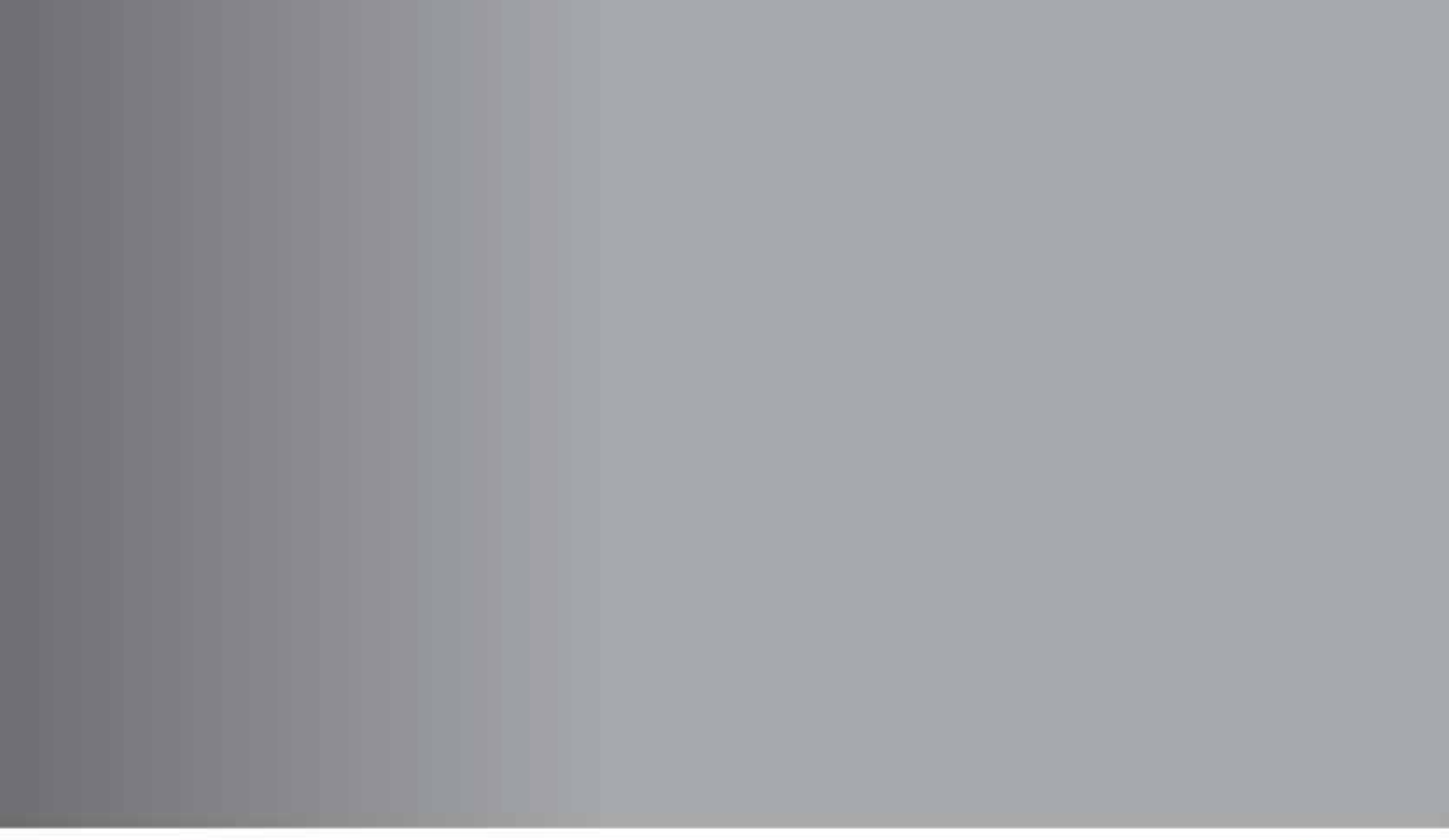
Formulation: 0.22 µm filtered protein as lyophilized or solution forms.

Endotoxin Level: LPS has been removed by purification process.

Concentration: 10 and 25 µg sizes are bottled at 50- 200 µg/mL.

Storage & Handling: Unopened vial can be stored between 2°C and 8°C for one month, at -20°C for six months, or at -70°C for one year.

Application: Bioassay, ELISA



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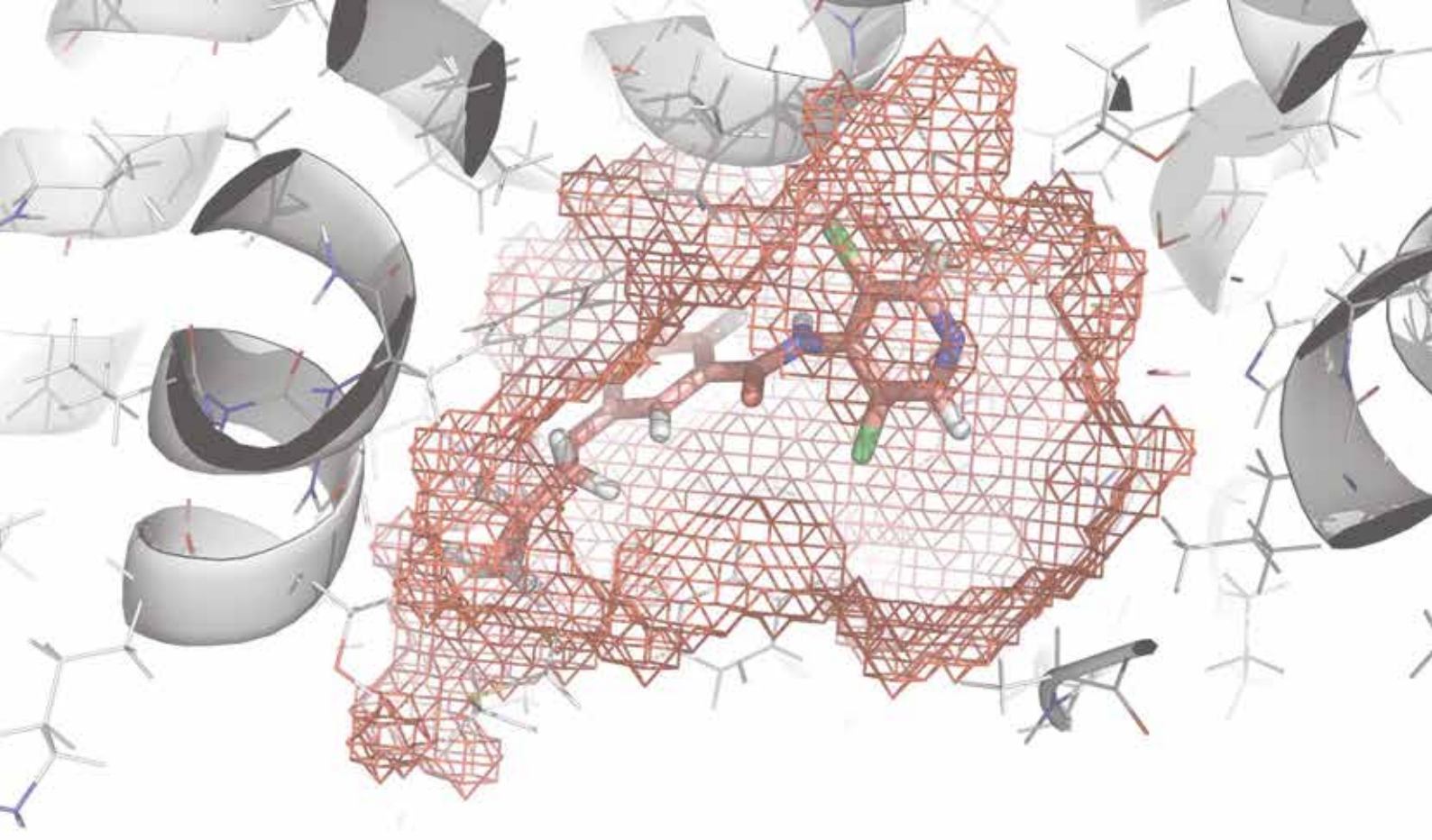

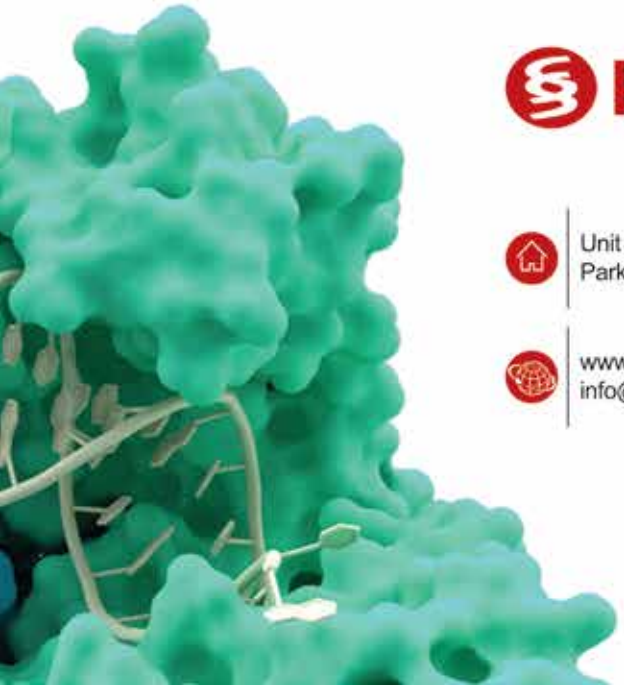

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