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Product Catalog



#startupindia





Registered Address: C -212, Lajpat Nagar -1, New Delhi. Pin - 110024

Website: www.ednabiolabs.com E-mail: info@ednabiolabs.com

Your Science. Our Enzyme. Fastest Result.



- Produces specialty enzymes for the Indian and Global market.
- Product offering includes enzymes the Molecular Biology and Mass Spectrometry segments, as well as **Kits** and **Reagents**.
- Founding team from top universities (IIT Delhi, ICT) Mumbai) and leading companies (Biocon, Syngene, Intas).
- Scientific Advisor Prof. Anurag S. Rathore, Coordinator of the DBT Centre of Excellence for Biopharmaceutical Technology.



Entirely "Make In India" products.



Quality Guaranteed equal activity and purity when compared with international companies.



Delivery 2 to 5 days of TAT.



Support Quick response team for all your queries.



Innovation **Innovative** process developed for production, purification and stable formation.

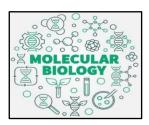


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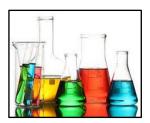
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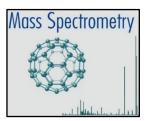
Products We Offer



- Enzymes and Kits for PCR
- Enzymes and Kits for RT-PCR
- Modifying Enzymes
- > Plasmid DNA Isolation Kits
- Genomic DNA Isolation Kits
- RNA Isolation Kits and Reagents



- > Cell Culture Reagents and Media
- > EtBr Free Nucleic Acid Gel Stains
- Ladders and Gel Loading Dyes
- Western Blotting Reagents

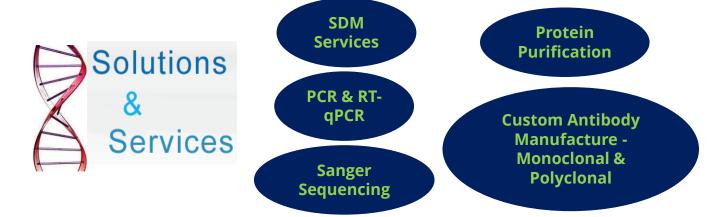


- Modified Trypsin
- Modified Chymotrypsin
- PNGase F
- Carboxypeptidase B
- ➢ Glu-C
- Protease & Phosphatase Inhibitor



- Peristaltic Pumps
- Columns and Resins
- Sample Loop

Life Sciences Solutions & Services



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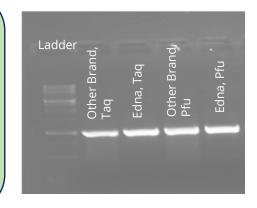
Enzymes & Kits for PCR - DNA Polymerases

Description:

- Edna DNA Polymerases are available as Taq DNA polymerase, High fidelity Pfu DNA polymerase and Hot-start Taq DNA polymerase.
- Edna DNA Polymerases are applicable in all types of regular PCR activities, cloning and gene expression studies.
- ❖ Taq DNA polymerase has been cloned from *Thermus aquaticus* and shows $5' \rightarrow 3'$ polymerase activity.
- ❖ Pfu DNA polymerase has been cloned from *Pyrococcus furiosus* and shows $3' \rightarrow 5'$ exonuclease (proofreading) activity but no $5' \rightarrow 3'$ exonuclease activity. Error rate is as low as 1.3×10^{-6} .
- Hot-start Taq provide ease in handling of PCR setup at room temperature.

Product Highlights:

- ✓ Recombinantly engineered, cloned in *E. coli* , shows > 99% purity.
- ✓ Easily incorporate dUTP, dITP and fluorescently-labeled nucleotides.
- ✓ Edna DNA polymerases have exceptional activity, stability, and value in terms of cost per unit.





Our Product Range:

Product Name	Catalog Number	Pack Size
Taq DNA Polymerase, 5 U/μL	TDP - 100 $TDP - 200$ $TDP - 400$	500 U 1000 U 2000 U
Taq DNA Polymerase with Mg^{2+} Free Reaction Buffer, 5 U/ μ L	TDPM – 100 TDPM – 200	500 U 1000 U
High-fidelity Pfu DNA Polymerase, 5 U/μL	PDP – 100 PDP – 200	500 U 1000 U
Hot-Start Taq DNA Polymerase, 5 U/μL	HSTDP – 50 HSTDP – 200	250 U 1000 U

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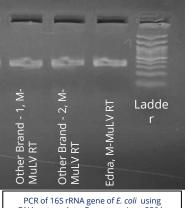
Enzymes & Kits for RT-PCR

Description:

- Edna Reverse transcriptase (RT) has been designed by introducing multiple mutations in the traditional M-MuLV RT to boost the performance of cDNA synthesis from single strand of RNA/mRNA.
- ❖ Edna Reverse transcriptase lacks 5'→3' exonuclease activity.
- Edna cDNA Synthesis Kit is a complete system for efficient synthesis of first strand cDNA from mRNA or total RNA templates.
- Edna Biolabs offers One-Step RT-PCR Kit which shows sensitive and robust end-point detection of RNA templates.
- Edna One-Step RT-PCR Kit facilitates cDNA synthesis and PCR amplification steps in a single reaction using gene-specific primers, resulting in a streamlined SOP for RT-PCR.

Product Highlights:

- ✓ Recombinantly engineered, cloned in *E. coli* , shows > 99% purity.
- ✓ Superior yields of full-length cDNA, high transcription efficiency on long RNA templates.
- ✓ Temperature range for RT activity is between 37 50 °C with an incubation period for 60 - 20 minutes with inverse relation (temperature: time).





Our Product Range:

Product Name	Catalog Number	Pack Size
M-MuLV Reverse Transcriptase, 200 U/ μ L	MMRT – 50 MMRT – 250	10000 U 50000 U
Rapid cDNA Synthesis Kit (Master Mix)	CSMMRT – 50 CSMMRT – 100	50 Reactions 100 Reactions
One Step RT-PCR Kit	OSRT – 25 OSRT – 50	25 Reactions 50 Reactions
Two Step RT-PCR Kit	TSRT – 25 TSRT – 50	25 Reactions 50 Reactions

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MOLECULAR BIOLOGY PRODUCTS

Modifying Enzymes - Ligase and Nucleases

Description:

- ❖ Edna T4 DNA Ligase has been cloned from Bacteriophage T4 and produced in *E. coli*. It is used routinely for ligation of blunt ends and cohesive ends generated from plasmid DNA / PCR product fragments treated with restriction enzymes. It can also be used for repair of single stranded nicks in duplex DNA.
- Edna Biolabs offers RNase A in Recombinant form as well as in solution form of molecular biology grade Bovine RNase A. Edna Recombinant Ultra-RNase A has got application in gene therapy and vaccine research.
- ❖ Edna Ultra-DNase I is an endonuclease routinely used for preparation of DNA-free RNA products. It is 100% recombinant and free of contaminating intrinsic RNases.

Product Highlights:

- ✓ Recombinantly engineered, cloned in *E. coli* , shows > 99% purity.
- ✓ Edna T4 DNA Ligase available in Standard concentration, High Concentration, and as Rapid Ligation Kit (reaction time < 10 minutes).
- ✓ Recombinant Ultra-RNase has 3X activity in Kunitz units/mg compared to its Bovine product.
- ✓ Edna Ultra-DNase I free from contaminating intrinsic RNases.

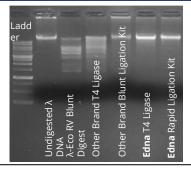


Fig 1: Edna T4 DNA Ligase & Edna Rapid Ligation Kit vs. its competitor brands

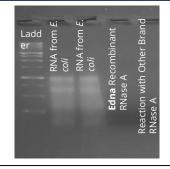


Fig 2: Activity of Edna Recombinant RNase A vs. its competitor brands

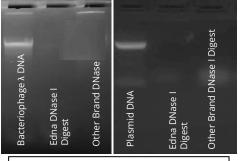


Fig 3: Activity of Edna Recombinant DNase I vs. its competitor brands



Our Product Range:

Product Name	Catalog Number	Pack Size
T4 DNA Ligase, 400 U/ μ L	$\mathrm{TDL}-50$	$20000~\mathrm{U}$
Rapid Ligation Kit	RLK - 20	20 Reactions
Ultra – RNase A, Recombinant, 1 mg/mL	RRA – 500	$0.5~\mathrm{mg}$ / $500~\mu\mathrm{L}$
Ultra – DNase I, Recombinant, 1 U/μL	RDI – 1000	1000 U

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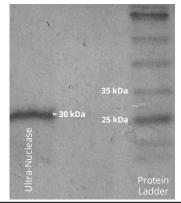
Modifying Enzymes - Ednarase

Description:

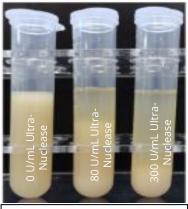
- Ednarase offered by Edna Biolabs comes in Recombinant form.
- It is produced recombinantly by expressing genes for endonuclease from Serratia marcescens in E. coli.
- It has a purity > 99% using proprietary purification techniques developed by Edna Biolabs.
- It is highly applicable in areas of
 - >> Viral vaccine production
 - >> Viral vector production
 - >> FAB purification
 - >> Reduction of viscosity
 - >> Immunoprecipitation
 - >> Host cell DNA depletion
 - >> Protein purification
 - >> Prevention of cell clumping

Product Highlights:

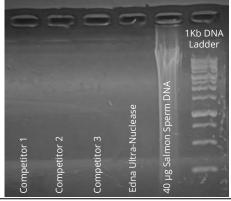
- ✓ Recombinantly engineered, cloned in *E. coli* , shows > 99% purity.
- ✓ Edna Ultra-Nuclease shows similar activity when compared to the available competitors.
- ✓ Available at a very competitive price.



Purified Ultra-Nuclease run on 12% SDS PAGE



Decrease in turbidity of 5 mL of RIPA lysate of 1gm *E. coli*



Digestion for 30 mins at 37 °C of 40 µg Salmon Sperm DNA by Edna Ultra-Nuclease vs Competitors



Our Product Range:

Product Name	Catalog Number	Pack Size
Ultra-Nuclease, Recombinant (250 U/μL)	$\begin{array}{c} \mathrm{BNZ} - 20 \\ \mathrm{BNZ} - 100 \end{array}$	5000 U 25000 U

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TEV Protease

Description:

TEV protease is a cysteine protease that specifically cleaves peptide bonds having sequence of ENLYFQ ▼S.

- The amino acid at P1 can also be G, A, M, C, or H instead of E, and TEV shows equal efficiency.
- ❖ TEV Protease of Edna Biolabs has been recombinantly produced in *E. coli* expressing the genes of *Tobacco Etch Virus*.
- Edna TEV Protease have exceptional activity and purity, suitable for removal of affinity purification tags such as MBP (maltose-binding protein) or polyhistidine from fusion proteins.
- Edna TEV has a seven His-tag for easy removal from a reaction using nickel affinity resins.

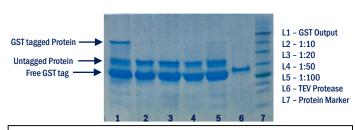
EnteroKinase

Description:

- Enterokinase from Edna Biolabs is a highly specific serine protease that cleaves peptide chains after Lysine preceded by 4 Aspartic acid.
 - Asp-Asp-Asp-Lys ▼
- ❖ Enterokinase (EKL) is a bovine protein with an active light chain, recombinantly designed as a single polypeptide chain.
- ❖ EKL has been recombinantly produced in *E. coli* expressing the genes of Bovine Enterokinase Light chain.
- Edna EKL shows high activity which was determined by
 A. Incubation with a fluorogenic enterokinase substrate
 - B. Incubation with a Fusion protein having EK site

Product Highlights:

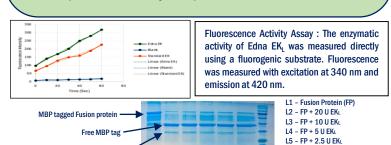
- ✓ Recombinantly engineered, cloned in *E. coli*, shows > 98% purity confirmed by SDS PAGE.
- ✓ Edna TEV Protease is highly active and ready for removal of affinity purification tags with TEV site.
- ✓ Edna TEV Protease shows at par activity with its competitors at a very competitive rate.



Optimization of cleavage of Tagged Protein by Edna TEV Protease: GST Elute buffer exchanged in presence of TEV Reaction Buffer using G-25 Column. SDS Gel shows almost complete removal of tag in 1:50 ratio. At 1:100 ratio, there is a leftover of some amount of residual protein.

Product Highlights:

- ✓ Recombinantly engineered, cloned in *E. coli*, shows > 95% purity confirmed by SDS PAGE.
- ✓ Edna EnteroKinase is highly active and ready for removal of affinity purification tags with EK site.
- ✓ Edna EnteroKinase shows at par activity with its competitors at a very competitive rate.



Optimization of cleavage of Tagged Protein by Edna EKL: The fusion protein was captured using MBP Hitrap chromatography and was buffer exchanged in EK reaction buffer and incubated at 25 °C for 16 hrs. Based on Gel >95% of tag is completely cleaved with just 1 U of Edna EK₁

L6 - FP + 1 U EKL

L7 - Protein Market

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MOLECULAR BIOLOGY PRODUCTS

Plasmid DNA Isolation Kit & Gel Extraction Kit

Plasmid DNA Isolation Kit - Mini and Midi prep

- ➤ Edna Biolabs offers **EdnaSpin Mini Plasmid DNA Isolation Kit** which purifies plasmid DNA having great repeatability and **High Yield:** ≈ 150 250 ng/μL; **Pure Quality:** 260:280 ratio is ≈ 1.79 1.83
- ➤ It uses silica-based spin columns for isolation of plasmid DNA. 1 5 mL of overnight culture can be processed in one single column.
- ➤ User Friendly: The buffers have a unique feature of changing its color in the reaction which allows better understating of resuspension, lysis and neutralization. The change of color is due to a proprietary chromogenic component **EdnaBlue**.



- ➤ Wide Range: EdnaSpin Mini Plasmid DNA Isolation Kit is capable of isolating plasmids having a size range of 3 15 Kb and provide comparable yield with low and high numbers.
- Most of the eluted plasmid DNA are ready for downstream application.
- > Per prep cost is competitive when compared to other market players.
- ➤ Edna Biolabs also offers **EdnaSpin Midi Plasmid DNA Isolation Kit** which replicates the miniprep in overall performance. Plasmid isolation can be done from 15 50 mL of overnight culture.

Gel Extraction and DNA CleanUp Kit

- EdnaSpin Gel Extraction Kit allows rapid and efficient extraction of DNA from low melting agarose.
- ➤ EdnaSpin DNA CleanUp Kit is ideally used during cleaning of DNA fragments generated by enzymatic reactions like PCR, Ligation and Restriction digestion.
- \triangleright Purity of DNA is \approx 1.7 1.93 and has a recovery rate of more than 80%.

Our Product Range:

Product Name	Catalog Number	Pack Size
EdnaSpin Mini Plasmid Isolation Kit	$\begin{array}{c} \mathrm{ESPE} - 50 \\ \mathrm{ESPE} - 250 \end{array}$	50 Prep 250 Prep
EdnaSpin Midi Plasmid Isolation Kit	ESMDPE – 25	25 Prep

Product Name	Catalog Number	Pack Size
EdnaSpin Gel Extraction Kit	$\begin{array}{c} \mathrm{ESGE} - 50 \\ \mathrm{ESGE} - 250 \end{array}$	50 Prep 250 Prep
EdnaSpin DNA CleanUp Kit	$\begin{array}{c} ESCU-50 \\ ESCU-250 \end{array}$	50 Prep 250 Prep

Fig: Comparison of Plasmid

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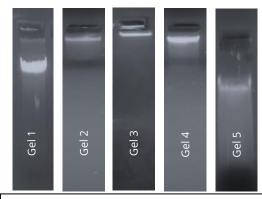
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MOLECULAR BIOLOGY PRODUCTS

Genomic DNA Isolation Kits

Bacterial & Cultured Cell Genomic DNA Isolation Kit

- EdnaSpin Bacterial & Cultured Cell gDNA Isolation Kit ensures purification of gDNA of high yield, pure quality with repeatability.
- \triangleright With ≈ 1 x 10⁶ cells, 10 50 μg of DNA can be obtained having $A_{260/280} \ge 1.7$.
- Fast, user friendly and efficient protocol having cost effective rate per prep.



Gel 1 – Bacterial gDNA, Gel 2 – Cell Culture gDNA, Gel 3 – Blood gDNA, Gel 4 – Animal Tissue gDNA, Gel 5 – Plant gDNA. All the gDNA samples are run in 1% agarose gel.

Blood & Animal Tissue Genomic DNA Isolation Kit

- ➤ Edna offers silica column based Animal Tissue gDNA Isolation Kit with high yield, high purity and repeatability.
- > EdnaSpin Blood gDNA Isolation Kit can give high and pure yield of gDNA from as low as 100 μL volume of blood.
- Fast, user friendly and efficient protocol having cost effective rate per prep.





Plant Genomic DNA Isolation Kit

- ➤ EdnaSpin Plant gDNA Isolation Kit provides buffers compatible for plant sample having both high and low secondary metabolites.
- ➤ It ensures high yield, great purity and repeatability for the isolated gDNA as it uses the technology of silica spin column.
- > Fast, user friendly and efficient protocol having cost effective rate per prep.



Our Product Range:

Product Name	Catalog Number	Pack Size
EdnaSpin gDNA Isolation Kit – Bacterial Cells	$\begin{array}{c} ESBG-50 \\ ESBG-250 \end{array}$	50 Prep 250 Prep
EdnaSpin gDNA Isolation Kit – Cultured Cells	ESCCG - 50 ESCCG - 250	50 Prep 250 Prep
** 100 Prep Pack for all the above kits are avail	able	

Product Name	Catalog Number	Pack Size
EdnaSpin gDNA Isolation Kit – Animal Tissue	$\begin{array}{c} ESTG-50 \\ ESTG-250 \end{array}$	50 Prep 250 Prep
EdnaSpin gDNA Isolation Kit – Blood	ESBLG – 50 ESBLG – 250	50 Prep 250 Prep
EdnaSpin gDNA Isolation Kit – Plant	ESPG – 50 ESPG – 250	50 Prep 250 Prep

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MOLECULAR BIOLOGY PRODUCTS

RNA Isolation Kits and Reagents

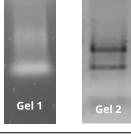
RNA Isolation Kit

Description & Product Highlight:

- ➤ Edna Biolabs offers EdnaSpin based RNA Isolation Kits of Bacterial Cells, Cultured Cells, Blood, Animal Tissue and Plant which ensures purification of RNA having high yield, pure quality and repeatability.
- ➤ Depending on the sample type, a high yield of RNA having $A_{260/280} \ge 1.95 2.05$ can be obtained.
- > Fast, user friendly and efficient protocol having cost effective rate.

Our Product Range:

Product Name	Catalog Number	Pack Size
EdnaSpin RNA Isolation Kit – Bacterial Cells	${\rm ESBR}-50$	50 Prep
EdnaSpin RNA Isolation Kit – Cultured Cells	${\rm ESCCR}-50$	50 Prep
EdnaSpin RNA Isolation Kit – Animal Tissue	ESTR - 50	50 Prep
EdnaSpin RNA Isolation Kit – Blood	${\bf ESBLR-50}$	50 Prep
EdnaSpin RNA Isolation Kit – Plant	ESPR - 50	50 Prep



Gel 1 - RNA isolation using EdnaSpin RNA Isolation Kits, Gel 2-RNA isolation using TRIZED. All the RNA samples are run in 1.5% agarose gel.

RNA Extraction Reagent - TRIZED™

Description & Product Highlight:

- ❖ TRIZED™ (equivalent to TRIzol) is an RNA Extraction reagent formulated and composed by Edna Biolabs.
- ❖ TRIZEDTM has unique **bright yellow color** which helps to distinguish the organic phase from the aqueous phase.
- RNA can be extracted from various samples like animal tissue and cells, blood, bacteria and plant giving high yield, purity, quality and repeatability. It maintains the integrity of RNA during the process of extraction by inhibiting RNase activity.
- ❖ TRIZED™ is a monophasic reagent containing phenol, guanidine salts, and other proprietary components.
- ❖ Edna Biolabs offers TRIZED™ at a very competitive rate and works at par with the products of competitors.

Our Product Range:

Product Name	Catalog Number	Pack Size
TRIZED RNA Extraction Reagent	TRI – 200	200 mL

RNA Storage Reagent - RNA Protect Description & Product Highlight:

- RNA Protect (equivalent to RNA Later) is an RNA storage solution which is used to store and carry tissue samples collected from field of interest.
- RNA extracted from samples kept in RNA Protect show high quality and integrity when compared with samples that are not kept in RNA Protect.
- ❖ Samples can be stored in RNA Protect for 1 day at 37°C, 1 week at 25°C, 1 month or more at 4°C, and long-term at -20°C or -80°C.
- Edna Biolabs also promotes RNaseStop (equivalent to RNaseZAP) which is used for sterilizing the work bench and small equipments before working with RNA. It is available in spray bottle.

Our Product Range:

Product Name	Catalog Number	Pack Size
Edna RNA Protect	${\bf RNAPRO-500}$	$500~\mathrm{mL}$
RNaseStop	RNASTP – 200	200 mL

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REAGENTS & BUFFERS: Cell Culture Media & Reagents

Cell Culture Media

Description:

❖ Edna provides different routine use cell culture media like DMEM and RPMI 1640.

DMEM - Dulbecco's Modified Eagle Medium

- ✓ Supplied with 4.5 g/L of glucose. L-glutamine, sodium pyruvate and 3.7 g/L sodium bicarbonate.
- ✓ It contains four-fold concentration of amino acids along with glycine, serine and ferric nitrate.
- ✓ It is mainly used for the growth of mammalian cell types like fibroblast, epithelial, neuronal, monocytes, endothelial, keratinocyte, lymphoblast and squamous cell carcinoma.

Product Name	Catalog Number	Pack Size
DMEM	$\begin{array}{c} DM-500\\ DM-1000 \end{array}$	500 mL 500 mL x 2

RPMI 1640 - Roswell Park Memorial Institute

- ✓ It is a series of media having different composition which may vary from low to high glucose content.
- ✓ It contains high concentration of vitamins along with Biotin, PABA and Cobalamin (vitamin B-12).
- ✓ It is traditionally used to grow human lymphocytes and serum free expansion of human lymphoid cells and for the cultivation of mammalian blood cells, cancer cell lines.

Product Name	Catalog Number	Pack Size
RPMI 1640	$\begin{array}{c} RP-500 \\ RP-1000 \end{array}$	$500 \mathrm{\ mL}$ $500 \mathrm{\ mL} \ge 2$

Cell Culture Reagents

Description:

Edna Biolabs provides different daily use cell culture reagents like Antibiotic and Antimycotic solutions at 100X concentration, Trypsin-EDTA solution at 1X concentration, Trypan Blue solution for cell counting, PBS – DPBS solutions and HBSS.

Product Name	Catalog Number	Pack Size
Antibiotic Solution, 100 X Solution, 10000 U Penicillin, 10 mg/mL Streptomycin	PENSTRP – 100	$100~\mathrm{mL}$
Antimycotic Solution, 100 X Solution, 10000 U Penicillin, 10 mg/mL Streptomycin, 25 μ g/mL Amphotericin B	ANMYCT – 100	$100~\mathrm{mL}$
Trypan Blue, 0.4% Solution	TRYB - 100	$100~\mathrm{mL}$
Trypsin EDTA, 1X Solution	${\bf TREDHP-500}$	$500~\mathrm{mL}$
Hank's Balanced Salt Solution	${ m HBSS}-500$	$500~\mathrm{mL}$
Phosphate Buffer Saline, 10X	PBS10X-500	$500~\mathrm{mL}$
Dulbecco's Phosphate Buffer Saline, 1X	DPBS – 500	500 mL







psin-EDTA Trypan Blue

Antibiotic Solution







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REAGENTS & BUFFERS: Western Blotting Reagents

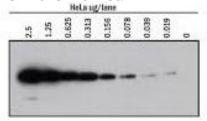
Western Blotting Substrate

Description:

- ❖ ECL Western Blotting Substrate offered by Edna Biolabs is an enhanced luminol based chemiluminescent substrate for the detection of horseradish peroxidase (HRP) on immunoblots.
- ❖ It is formulated such that it enables the detection of antigen at picogram amounts. The reaction produces a prolonged chemiluminescence which can be visualized in an imaging system.

Edna Biolabs ECL Western Blotting Substrate is a value-priced, highly sensitive substrate that can directly replace the expensive products available in the market.







5 sec exposure after ECL addition

30 sec exposure after ECL addition

Gel Staining Reagents

Description:

- ❖ Edna Biolabs formulated Edna Rapid Blue Stain is a Coomassie G-250 dye-based reagent for protein staining in polyacrylamide gels.
- Its salient features make it very much user friendly, fast and safe as no hazardous chemical like methanol and acetic acid are used. Features are –

No gel fixation step

Minimal background staining

No use of methanol and acetic acid

Very fast staining procedure – 1 hour maximum

- ❖ Silver Staining Kit is also promoted by Edna Biolabs for users who stains protein at Nano gram level concentration amking it 100 times more sensitive than Coomassie.
- The kit is fast, extremely sensitive with reproducibility and user friendly. It gives almost negligible background color during staining.

Our Product Range:

Product Name	Catalog Number	Pack Size
Edna ECL Western Blotting Substrate	$\begin{array}{c} \mathrm{ECL} - 50 \\ \mathrm{ECL} - 250 \end{array}$	$50 \mathrm{\ mL}$ $250 \mathrm{\ mL}$

Product Name	Catalog Number	Pack Size
Edna Rapid Blue Stain	CORBS - 500	500 mL
Silver Staining Kit	SSK-20	20 Mini Gel
Coomassie Staining Solution	COSS - 500	500 mL

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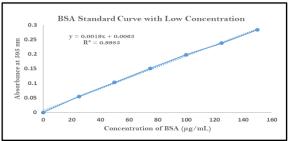
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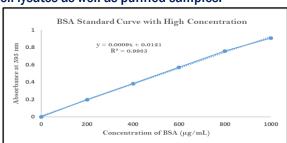
REAGENTS & BUFFERS: Protein Estimation Assay Kits & Reagents

Bradford Reagent

Description:

- Bradford Reagent promoted by Edna Biolabs allows fast, reliable and accurate protein quantification.
- Salient Features -
 - ** Fast results Protein quantification assay can be completed within 15 minutes.
 - ** Sensitivity It has got a vey wide range of sensitivity ranging from 25 µg/mL to 1 mg/mL.
 - ** Easy usage Mix reagent with sample, incubate at room temperature in dark for 5 minutes and absorbance read at 595 nm.
 - ** Compatible with standard laboratory protocols and works properly with all common proteins (eg: BSA).
- Applications Routine laboratory use for quantification of proteins in cell lysates as well as purified samples.

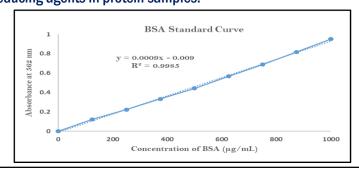




BCA Protein Assay Kit

Description:

- **Edna Biolabs formulated BCA Reagent is a widely used protein quantification method which is reliable, simple and accurate.**
- Salient Features -
 - ** High Sensitivity and Accuracy Protein quantification can be done over a range from 20 μg/mL to 2 mg/mL.
 - ** Compatibility Highly robust, can tolerate detergents, salts and reducing agents in protein samples.
 - ** Simple and convenient to use Mix reagent with sample, incubate at 37 °C for 30 minutes and absorbance read at 562 nm.
- Applications
 - ** Estimation of protein before SDS PAGE or Western Blotting
 - ** Quality control study and characterization of protein samples
 - ** Biopharmaceutical developments
 - ** Enzyme kinetics and structural biology studies.



Our Product Range:

Product Name	Catalog Number	Pack Size
Bradford Reagent	$\mathrm{BFR}-500$	$500~\mathrm{mL}$
Protein Estimation Kit (Bradford)	$\mathbf{PEKBD} - 250$	250 Reactions
BCA Protein Assay Kit	BCA - 50	50 Reactions

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REAGENTS & BUFFERS

SAFEtBr - Safe Agarose Gel Staining Dye

Description & Product Hightlight:

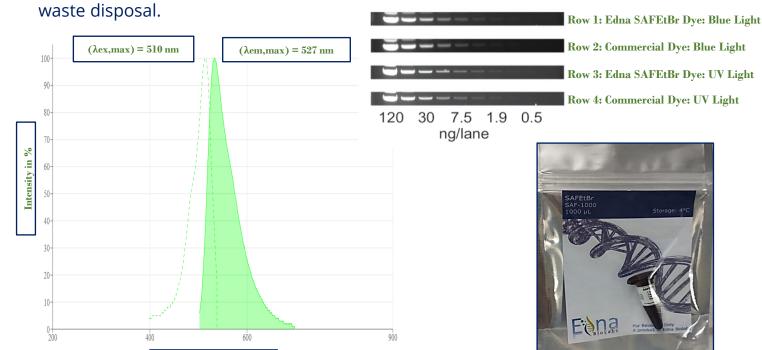
- Edna Biolabs has successfully formulated EtBr free Agarose Gel Staining Dye SAFEtBr for visualizing DNA and RNA. It is non-fluorescent and is available as a solution in DMSO.
- SAFEtBr binds to nucleic acids of all kinds (gDNA, PCR products, Plasmids and RNA), and can be visualized under blue light or UV excitation.
- It exhibits fluorescence only after binding to DNA/RNA. It has Excitation wavelength (λex,max) = 510 nm
 (488 nm and 470 nm also show strong excitation in addition to

(488 nm and 470 nm also show strong excitation, in addition to strong excitation at UV wavelengths)

Emission wavelength (λem,max) = 527 nm

Wavelength (\(\lambda\) in nm

- SAFEtBr detection sensitivity is comparable to that of SYBR Safe.
- SAFEtBr is non-hazardous does not need any special disposal procedures like hazardous



Our Product Range:

Product Name	Catalog Number	Pack Size
SAFEtBr – Safe Agarose Gel Staining Dye	$\mathrm{SAF}-1000$	1 mL

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Website: www.ednabiolabs.com E-mail: info@ednabiolabs.com

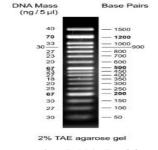
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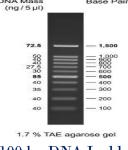
REAGENTS & BUFFERS: Ladders and Gel Loading Dyes

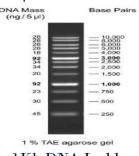
Ladders - DNA & Protein

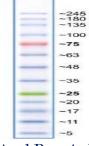
Description:

- ❖ Edna Biolabs promotes DNA markers as well as Protein markers which are ready-to-load as they are premixed with tracking dye.
- ❖ DNA molecular markers are available in three different forms -
 - 50 bp Ladder premixed with Orange G tracking dye.
 - 100 bp Ladder premixed with Bromophenol Blue tracking dye.
 - 1 Kb Ladder premixed with Bromophenol Blue tracking dye.
- ❖ Protein molecular marker is ready-to-load and available in Prestained form with three-color protein standards.
- ❖ Prestained protein ladder covers 5 245 kDa with 25 kDa as Green, 75 kDa as Red as reference markers and remaining markers as Turquoise.









50 bp DNA Ladder

100 bp DNA Ladder

1Kb DNA Ladder

Prestained Protein Marker

Gel Loading DyesDescription:

Edna Biolabs offers Agarose Gel Loading Dyes in 6X concentration as – Single Dye [Bromophenol Blue or as Orange G Dye].

Double Dye [Bromophenol Blue and Xylene Cyanol].

Triple Dye [Bromophenol Blue, Xylene Cyanol and Orange G].

❖ Edna Biolabs also offers 2X SDS Gel Loading Dye for Protein loading in SDS-PAGE.

Our Product Range:

Product Name	Catalog Number	Pack Size
50 bp DNA Ladder, Ready-to-Use, 100 Loads	DLDR - 50	500 μL
100 bp DNA Ladder, Ready-to-Use, 100 Loads	DLDR - 100	500 μL
1 Kb DNA Ladder, Ready-to-Use, 100 Loads	$\mathrm{DLDR}-1000$	500 μL
Prestained Protein Ladder, 100 Loads	PPL – 100	2 x 250 μL
6X Gel Loading Single Dye	GLSD - 5000	5 x 1 mL
6X Gel Loading Double Dye	GLDD - 5000	5 x 1 mL
6X Gel Loading Triple Dye	GLTD - 5000	5 x 1 mL
6X Gel Loading Orange Dye	GLOD - 5000	5 x 1 mL
2X SDS PAGE Sample Loading Dye	SSLB - 5000	5 x 1 mL
2X RNA Gel Loading Double Dye	$\mathrm{GLDDR} - 5000$	5 x 1 mL

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REAGENTS & BUFFERS

Protease & Phosphatase Inhibitors

Description:

❖ Edna Biolabs formulated **Protease Inhibitor** is efficient enough for inhibition of proteolytic activity of wide range of protease family like serine, cysteine, metalloproteases and aspartic proteases.

Edna Biolabs formulated **Phosphatase Inhibitor** is efficient enough for inhibition of phosphatases having serine/threonine, tyrosine, acidic and alkaline specificity.

Our Product Range:

Product Name	Catalog Number	Pack Size
Edna Protease Inhibitor Cocktail, 100X	PIC-1	1 mL
Edna Phosphatase Inhibitor Cocktail, 100X	PHI – 1	1 mL

REAGENTS AND BUFFERS: Electrophoresis & Other Buffers

Product Name	Catalog Number	Pack Size
10 mM dNTP Mix (2.5 mM each)	$\mathbf{DNTP}-1000$	1 mL
Bovine Serum Albumin, High Pure, 20 mg/mL	BSA - 500	500 μL
Bradford Protein Estimation Kit	BPE – 250	250 Reactions
CTAB Extraction Buffer	${\bf CTABEB-250}$	$250~\mathrm{mL}$
10X TAE Agarose Gel Running Buffer	$\mathrm{TAE}-1000$	1 Lt
10X TBE Agarose Gel Running Buffer	$\mathrm{TBE}-1000$	1 Lt
RIPA Lysis Buffer	RLB - 500	500 mL
10X Tris-Glycine-SDS PAGE Running Buffer	SRB – 1000	1 Lt
30% Acrylamide : Bisacrylamide Solution (29:1)	ACRYL – 30	100 mL
Ethidium Bromide, 10 mg/mL	ETBR - 1000	1 mL
10X MOPS Buffer	MOPS - 500	500 mL
PBS Blocking Buffer for Western Blotting (3% BSA in 1X PBS)	BBPBS – 1000	1 Lt
TBS Blocking Buffer for Western Blotting (3% BSA in 1X TBS)	BBTBS - 1000	1 Lt
Nuclease Free Water, Molecular Biology Grade	NFW - 500	$500~\mathrm{mL}$
Nuclease Free Water, DEPC Treated, Molecular Biology Grade	DTW - 500	500 mL

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CHROMATOGRAPHY: Accessory Instruments

Peristaltic Pump

Description:

- Powerful function with a compact appearance.
- Support flow rate calibration.
- Support controlling speed with a speed controller.
- ❖ Real time clock, support timing start and stop.
- ❖ Support multiple machine use in a series with expansion cable.
- ❖ Friendly man-machine interface with LED backlight display and key operation.
- ❖ Interval between each run can be set, support cycle run, support time-span run.



Product Name	Catalog Number	Pack Size
Peristaltic Pump	PP-10	1 pc
Column	COL - 1	1 mL
Edna Sample Loop	ESL – 1	1 m

Columns, Resins & Sample Loop

Description:

- Chromatography columns offered by Edna Biolabs are scalable and can be used for screening, process development and scaling-up applications and general laboratory purifications.
- ❖ Empty column sizes range from 1mL to 20mL, very easy to pack, resin compressibility is taken into account.
- Minimum dead volume for high resolution applications.
- Proven flow distribution mechanism.
- ❖ Tight packing of any type of chromatography media (>20 µm).
- Features connections, which are compatible with common chromatography instruments like AKTA.

❖ Long life time, easy storage and available at low cost, can be stored and re-used after packing with resin of choice.



Column Volume	0.33 mL, 0.67mL, 1mL	5 mL, 10 mL	20 mL
Column Inner Diameter	6.2 mm	11 mm	16 mm
Materials of Construction	Polypropylene	Polypropylene (for plunge	r), acrylic (for column body)
Operational Pressure	6 bar	3	bar

- ❖ Edna Biolabs also offer resins like Sepharose, Ni-NTA and Glutathione beads.
- ❖ Sample loading loops of various size which are compatible with columns and AKTA are also available.

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MASS SPECTROMETRY PRODUCTS

Modified Trypsin

Description:

- Trypsin is a serine endopeptidases. It cleaves at the carboxylic side of Lysine and Arginine residues.
- Edna Biolabs offers Trypsin in lyophilized form that have high activity and specificity, resulting in very high sequence coverage. Trypsin has application in peptide mapping and fingerprinting.
- ❖ Trypsin is sourced from porcine pancreas and under goes multiple steps of chromatography to give >99% purity.
- Trypsin is modified by reductive methylation and is extremely resistant to autolytic self-cleavage.
- Trypsin shows improved specificity due to TPCK treatment.

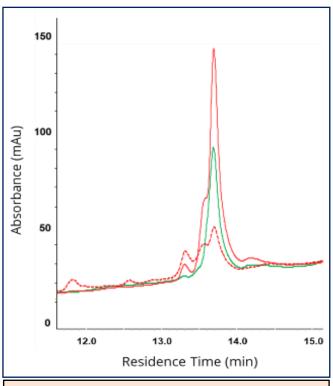
Product Highlights:

- ✓ Trypsin shows > 99% purity.
- ✓ Edna Trypsin activities exceed >19,000 BAEE units/mg.
- ✓ Use with EdnaPRO Digestion Improver, a custom detergent for better cleavage at hard-to-access sites.

Our Product Range:



Product Name	Catalog Number	Pack Size
Modified Trypsin, Lyophilized	$\begin{array}{c} MTL-100\\ MTL-500 \end{array}$	$100~\mu \mathrm{g}$ $100~\mu \mathrm{g} \propto 5$



RP-HPLC profile of Edna (green) vs. other brand (red), Trypsin showing the high purity of our products in comparison to some products on the market.

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MASS SPECTROMETRY PRODUCTS

Modified Chymotrypsin

Description:

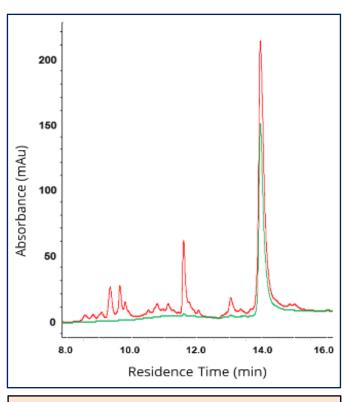
- Chymotrypsin is also a serine endopeptidases. It cleaves at the carboxylic side of aromatic amino acids Tyrosine, Phenylalanine, and Tryptophan.
- ❖ Edna Biolabs offers Chymotrypsin in lyophilized form that have high activity and specificity, resulting in very high sequence coverage. It also have application in peptide mapping and fingerprinting.
- Chymotrypsin is sourced from porcine pancreas and under goes multiple steps of chromatography to give >99% purity.
- Chymotrypsin shows improved specificity of TLCK treatment.

Product Highlights:

- ✓ Chymotrypsin shows > 99% purity.
- ✓ Edna Chymotrypsin activities exceed >70 ATEE units/mg.
- ✓ Use with EdnaPRO Digestion Improver, a custom detergent for better cleavage at hard-to-access sites.

Our Product Range:

Product Name	Catalog Number	Pack Size
Modified Chymotrypsin, Lyophilized	$\begin{array}{c} MCTL-100 \\ MCTL-500 \end{array}$	$100 \mu \mathrm{g}$ $100 \mu \mathrm{g} \ge 5$



RP-HPLC profile of Edna (green) vs. other brand (red), Chymotrypsin showing the high purity of our products in comparison to some products on the market.

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MASS SPECTROMETRY PRODUCTS

PNGase F

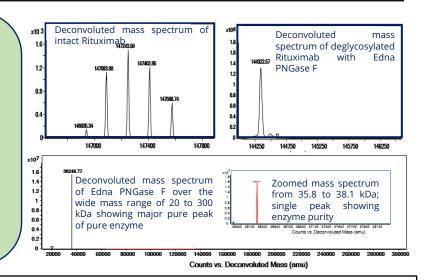
Description:

- ❖ PNGase F, also known as N-Glycosidase F, is routinely used for cleaving N-linked oligo-saccharides in deglycosylation reactions to characterize glycan profiles of antibodies or other biomolecules.
- ❖ Edna Biolabs PNGase F has been cloned from *Elizabethkingia miricola* and recombinantly produced in *E. coli* . We promotes PNGase F products which have exceptional activity and purity.
- ❖ PNGase F of Edna Biolabs is available in standard, glycerol-free and glycerol-EDTA-free formulations for optimal compatibility with further analyses and is free from endoglycosidases F1, F2 and F3.
- ❖ Edna Biolabs also provides an EdnaQuick PNGase F Reaction Mix and custom protocol for total deglycosylation in 20 minutes instead of hours.

Product Highlights:

- ✓ Recombinantly engineered, cloned in E. coli, shows > 98% purity.
- ✓ EdnaQuick PNGase F Reaction Mix is available to reduce reaction time to mere minutes.
- ✓ Edna PNGase F is available in standard, glycerol-free and glycerol-EDTA-free formulations.

Our Product Range:



PGF - 20

PGF - 160

10000 U

80000 U



Product Name	Catalog Number	Pack Size
PNGase F, Glycerol-ETA-Free, 500 U/ μ L	$\begin{array}{c} \mathbf{PGFGE} - 20 \\ \mathbf{PGFGE} - 160 \end{array}$	10000 U 80000 U
EdnaQuick PNGase F Reaction Mix	RPK – 20 RPK – 150	20 Reactions 150 Reactions

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PNGase F, 500 U/µL

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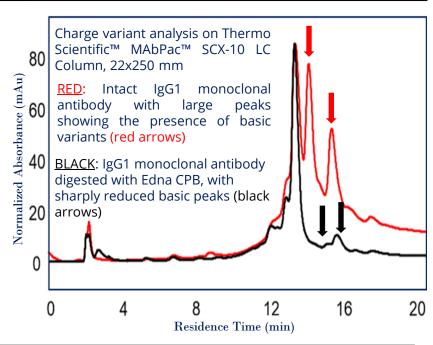
Carboxypeptidase B [CPB]

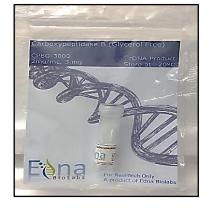
Description:

- ❖ CPB is a pancreatic endo-peptidase that cleaves C-terminal basic residues, particularly Arg and Lys. Edna promotes CPB in its active form which contains a non-dialyzable Zn²+ to activate the metalloprotease.
- CPB has been cloned from Rattus norvegicus and recombinantly produced in E. coli.
- CPB of Edna Biolabs have exceptional activity and purity. It is suitable for characterization of mAbs and production of biopharmaceutical molecules like insulin.
- Edna CPB is produced as a tag-free pro-enzyme with in-vitro refolding, activation, and multiple steps in purification. It is extensively tested in mAb characterization for removal of Lys residues in basic charge variants.

Product Highlights:

- ✓ Recombinantly engineered, cloned in E. coli, shows > 99% purity.
- ✓ Edna CPB is available in its active form and ready for mAb characterization and biosimilar production.
- ✓ Edna CPB shows at par activity with its competitors present in the market at a competitive rate.





Our Product Range:			
	Product Name	Catalog Number	Pack Size
	Carboxypeptidase B, Frozen & Glycerol free	$\begin{array}{c} \mathrm{CPBG} - 200 \\ \mathrm{CPBG} - 1000 \end{array}$	200 μg 1000 μg

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MASS SPECTROMETRY PRODUCTS

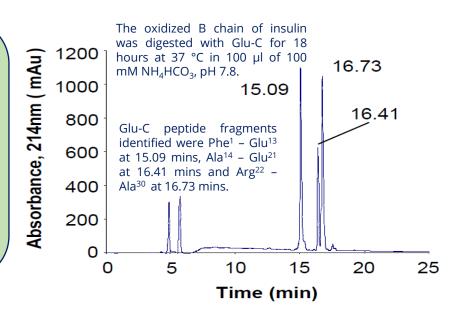
Glu - C

Description:

- ❖ Glu-C promoted by Edna Biolabs is a serine protease that specifically cleaves peptide bonds at the C-termini of glutamic acid residues. It also cleaves at aspartic acid residues at a 100-300 times slower rate.
- Glu-C has been recombinantly produced in E. coli expressing the genes of Endo-proteinase Glu-C from Staphylococcus aureus V8.
- Glu-C of Edna Biolabs have exceptional activity and purity. It is suitable for peptide mapping, fingerprinting and protein sequence analysis.
- ❖ Edna Glu-C is available in lyophilized form in the presence of trehalose. It can be reconstituted with high pure water. The suitability of Glu-C is demonstrated herein by the digestion of oxidized B-chain of insulin.

Product Highlights:

- ✓ Recombinantly engineered, cloned in E. coli, shows > 99% purity.
- ✓ Edna Glu-C is highly active and pure, ready for mapping, fingerprinting and sequence analysis.
- ✓ Edna Glu-C shows at par activity with its competitors present in the market at a very competitive rate.



Our Product Range:

Product Name	Catalog Number	Pack Size
Glu-C, Sequencing Grade, Lyophilized	MGCL-50	50 μg

Registered Address: C -212, Lajpat Nagar -1, New Delhi. Pin - 110024

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MASS SPECTOMETRY PRODUCTS

IdeS Protease

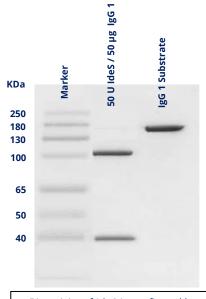
Description:

- IdeS Protease offered by Edna Biolabs comes in Recombinant form.
- ❖ It is produced recombinantly by expressing genes derived from *Streptococcus pyrogenes* in *E. coli*.
- ❖ It is an IgG-specific cysteine protease which digest antibodies at a single amino acid site found below the hinge, generating homogenous F(ab')2 and Fc fragments.
- High specificity of IdeS Protease for IgG makes it applicable in various fields like
 - >> Antibody characterization.
 - >> Detect and quantify IgG antibodies in various tissues and blood samples.
 - >> Study the structure and function of antibodies.

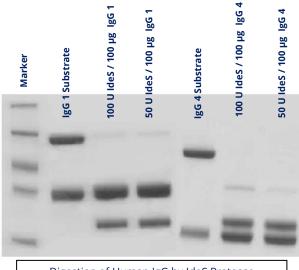
Product Highlights:

- ✓ Recombinantly engineered, cloned in *E. coli*, shows > 99% purity.
- ✓ Edna IdeS Protease shows at par activity when compared to the available market competitors.
- ✓ It is available at a very competitive price.





Bioactivity of IdeS is confirmed by the cleavage of Human IgG 1 and analyzed by SDS-PAGE



Digestion of Human IgG by IdeS Protease incubated at 37 $^{\circ}$ C for 30 mins in PBS pH 7.4

Our Product Range:

Product Name	Catalog Number	Pack Size
IdeS Protease, Recombinant (> 50 U/μL)	$\begin{aligned} & IDP-100 \\ & IDP-500 \end{aligned}$	5000 U 25000 U

Registered Address: C -212, Lajpat Nagar -1, New Delhi. Pin - 110024

Website: www.ednabiolabs.com E-mail: info@ednabiolabs.com



 $\underline{\textbf{Website:}}\ \underline{\textbf{www.ednabiolabs.com}}$

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