# PNGASE F

REMOVAL OF N-LINKED OLIGOSACCHARIDES FROM GLYCOPROTEINS

## PRODUCT DETAILS

DX/DT PNGase F (Peptide N-Glycosidase F) is an enzyme used in molecular biology for the deglycosylation of N-linked glycoproteins. This enzyme catalyzes the hydrolysis of the amide bond between the asparagine residue and the N-acetylglucosamine (GlcNAc) of N-linked glycoproteins, resulting in the release of the glycan moiety and the conversion of the asparagine residue to aspartic acid. This process is crucial for the study of protein glycosylation, as it enables the analysis of the protein backbone without interference from the attached sugar chains.

DX/DT PNGase F is a highly specific and efficient enzyme, making it a valuable tool for researchers in various fields, including biochemistry, molecular biology, and biotechnology. With its ability to remove glycosylation from proteins, PNGase F plays an essential role in protein analysis and research, making it an indispensable enzyme in the field of life sciences.

## FEATURES

- Specificity – DX/DT PNGase F is a highly specific enzyme that cleaves the amide bond between the asparagine residue and the N-acetylglucosamine (GlcNAc) of N-linked glycoproteins.
- Efficiency – The enzyme is highly efficient, and the deglycosylation reaction is typically complete within a few hours.
- Size – The enzyme is a relatively small protein with a molecular weight of approximately 37 kDa.
- pH and temperature stability – PNGase F is stable over a broad pH range (pH 5-10) and can withstand temperatures of up to 50°C, making it useful in a variety of applications.
- Substrate specificity – The enzyme has a preference for the core fucose-containing N-glycans and high-mannose type N-glycans.
- Glycan recognition – PNGase F can recognize and cleave various N-linked glycans, including those with complex and hybrid structures.
- Purity: ≥ 99% on SDS Page; Free from any proteases activity & nucleases

# PNGASE F

REMOVAL OF N-LINKED OLIGOSACCHARIDES FROM GLYCOPROTEINS

## DATA

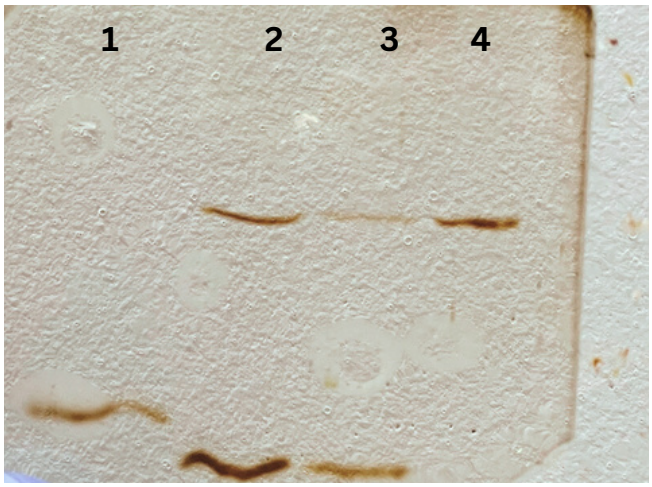


*Fig 1: Efficacy of DX/DT PNGase F & purity*

**Details: Fig 1**

RNase B is heavily glycosylatd with mannose which is used as control testing endoglycosidases that removes N-linked carbohydrates. 10µg of RNase B is treated with 1µL of DX/DT PNGase F(500U/µL).

Lane 1: RNase B protein, WITHOUT PNGase F treatment
Lane 2: RNase B protein + 1µL DX/DT PNGase F (20µL Loaded on SDS Gel)
Lane 3: RNase B protein + 1µL DX/DT PNGase F (10µL Loaded on SDS Gel)
Lane 4: DX/DT PNGase F only

Inferences:

- Clear band-shift of RNase B is seen indicating cleavage of N Glycans.
- DX/DT PNGase F is extremely pure ≥ 99% (Lane 4)

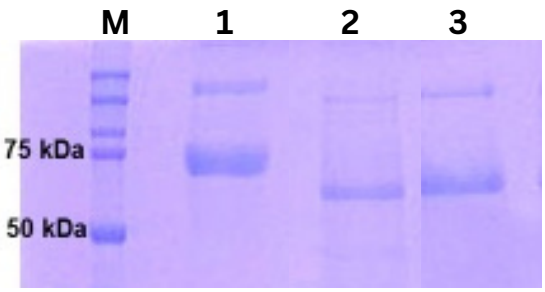


*Fig 2: Comparision with NEB PNGase F*

**Details: Fig2**

A glycosylated protein (50µg) was treated with 2µL of DX/DT PNGase F and NEB PNGase F. Incubated for 24 hours at 37℃

ane M: Protein Marker
Lane 1: Protein WITHOUT PNGase F treatment.
Lane 2: Protein with DX/DT PNGase F, 1.4M detergent denaturing condition
Lane 3: Protein with NEB PNGase F, 1.4M Urea denaturing condition

Inference: Comparable performance was observed with DX/DT and NEB PNGase F.

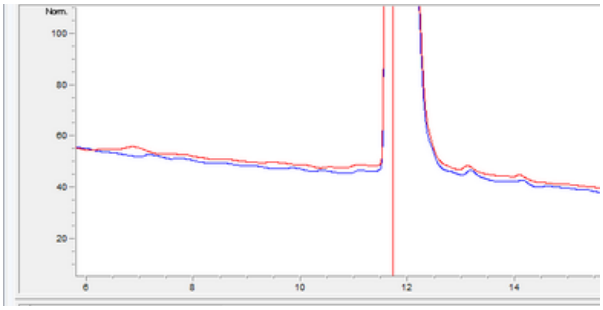

*Fig 3: Test for protease activity*

**Details: Fig3**

A sensitive, therapeutic protein was incubated with DX/DT PNGase F for 2 hours at 37℃. No detectable impurities were observed during the treatment using HPLC analytical chromatography.
RED: Protein before treatment
BLUE: Protein after treatment with DX/DT PNGase F.

# PRODUCT DETAILS

| | |
|---|---|
| Name | DX/DT PNGase F |
| Molecular weight | 36k Da |
| Batch# | R13230402 |
| Form | Liquid form with 50% glycerol |
| Activity | 500 U/µL |
| Source | Cloned from *Elizabethkingia meningosepticum* |

## STORAGE CONDITIONS

Stable at -20°C for 2 years

## BUFFER DETAILS

**1X Glycoprotein Denaturing Buffer :**
0.5% SDS
40 mM DTT

**1X Glyco Buffer:**
50 mM Sodium Phosphate
(pH 7.5 @ 25°C)

## CATALOG

- **R1301 - 20,000 UNITS (500U/µL)**
- **R1302 - 1 LAKH UNITS (500U/µL)**

## QUALITY CONTROL

**Nuclease Test**
No contamination of endo or exonucleases were detected. No contamination of RNase detected.

**Purity**
SDS - PAGE purity ⩾ 99%

**Protease Test**
No contamination of protease detected.

## ORDERING INFORMATION

**Contact**

info@dxbidt.com | +91-7349708807

**More information**
www.dxbidt.com