QUICK-PNGASE F

10 MINUTES REACTION

PRODUCT DETAILS

DX/DT Quick 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.

FEATURES

1. **Fast Deglycosylation**: As the name suggests, Quick PNGase F is known for its speedy deglycosylation process. It can remove N-linked glycans from glycoproteins in as little as **5 -10 minutes,** making it suitable for high-throughput applications and saving valuable time in research.
2. **High Specificity:** This enzyme specifically targets N-glycan structures, cleaving them at the asparagine (N) residue within the N-X-S/T motif. It does not affect other protein modifications, ensuring accurate and selective deglycosylation.
3. **Versatility**: Quick PNGase F is compatible with various buffer systems and conditions, including denaturing conditions, making it suitable for a wide range of experimental setups and sample types.
4. **Biomedical Research:** It is widely used in biomedical research to investigate protein glycosylation, particularly in the context of diseases such as cancer, diabetes, and immunological disorders. It plays a crucial role in studying glycoproteins and their functional implications.
5. **Enzyme Stability**: Quick PNGase F is typically stored frozen at -20°C or -80°C to maintain its stability and enzymatic activity over an extended period, ensuring reliable performance in experiments.

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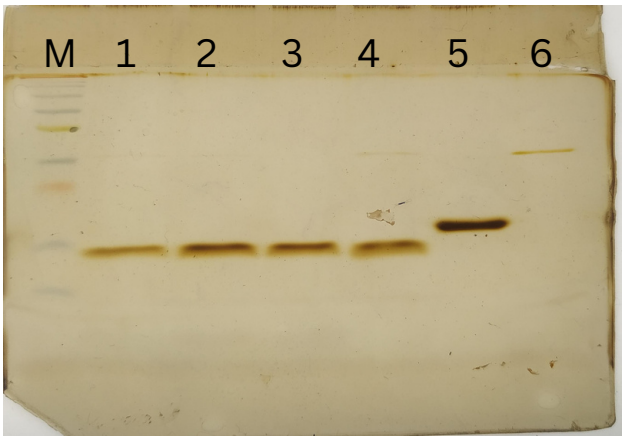
DATA



Details: Fig 1

RNase B is heavily glycosylatd with mannose which is used as control testing endoglycosidases that removes N-linked carbohydrates. 20µg of RNase B is treated with 1µL of DX/DT PNGase F, incubated at 50℃ for just 5 minutes.

Lane M: Marker
Lane 1: RNase B protein + 0.25µL DX/DT Quick PNGase F (20µL Loaded on SDS Gel)
Lane 2: RNase B protein + 0.5µL DX/DT Quick PNGase F
Lane 3:RNase B protein + 0.75µL DX/DT Quick PNGase F
Lane 4:RNase B protein + 1µL DX/DT Quick PNGase F
Lane 5:RNase B protein
Lane 6: DX/DT Quick PNGase F

Inference: 100% band shift was observed due to deglycosylation. PNGase F protien is extremely pure (Lane 6)

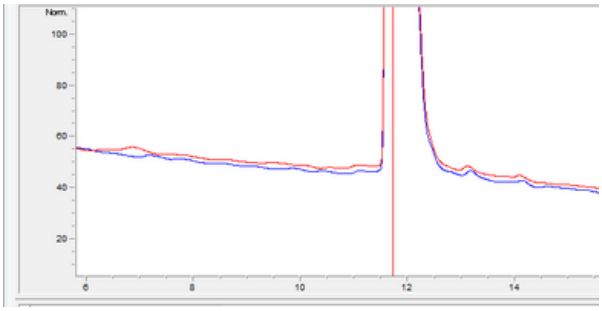


Fig 2: Test for protease activity

Details: Fig2

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 Quick PNGase F
Molecular weight	36k Da
Batch#	R13230501
Form	Liquid form with 50% glycerol
Source	Cloned from *Elizabethkingia meningosepticum*

STORAGE CONDITIONS

Stable at -20°C for 2 years

PACK CONTAINS

1X Glycoprotein Denaturing Buffer :

1X Glyco Buffer:

CATALOG

- **R1303 - 50 Reactions**
- **R1304 - 250 Reactions**

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

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More information

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