LEADGENE
LEADGENE BIOMEDICAL, INC.

Product Information & Manual

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LeadGMP® PNGase F

Cat no. LDG004R-GMP

Product Overview

Package component

Specification	Item	Amount
15 KU	LeadGMP® PNGase F	1 vial (400 U/μL)
	10X Glycoprotein Denaturing Buffer	1 vial (1 mL)
	10X Reaction buffer	1 vial (1 mL)
	10% NP-40	1 vial (1 mL)
75 KU	LeadGMP® PNGase F	1 vial (400 U/μL)
	10X Glycoprotein Denaturing Buffer	1 vial (1 mL)
	10X Reaction buffer	1 vial (1 mL)
	10% NP-40	1 vial (1 mL)

Description

PNGase F is an enzyme used in biochemistry and molecular biology to remove N-linked glycans from glycoproteins. By using PNGase F, researchers can enzymatically cleave between these sugar chains and asparagine residues of glycoproteins, allowing for the study of protein structure and function, particularly in glycosylation research.

Source

Escherichia coli

Activity

One unit is defined as the amount of enzyme required to remove > 95% of the carbohydrate from 10 μg of denatured RNase B in 1 hour at 37°C in a total reaction volume of 10 μL.

Storage buffer

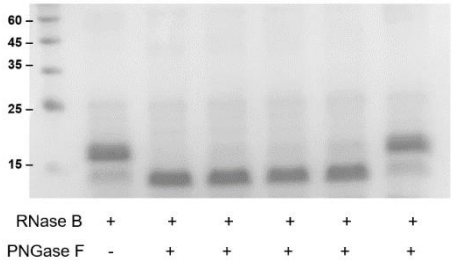
The enzyme is supplied in 20 mM Tris-HCl, 50 mM NaCl, 5 mM EDTA, pH 7.5

Storage and Stability

This product is stable after storage at -20°C for long-term storage under sterile conditions. Avoid repeated free-thaw cycles.

Procedure

1. Add 1-10 μg of the target glycoprotein, 1 μL of 10X Glycoprotein Denaturing Buffer, and an appropriate volume of H_2O to a final 10 μL total reaction volume.
2. Heat the sample for protein denature at 100°C for 10 minutes.
3. Add 2 μL of 10X Reaction Buffer, 1–5 μL of PNGase F (400–2000 units), 2 μL of 10 % NP-40 and an appropriate volume of H_2O to a final 20 μL total reaction volume.
4. Incubate reaction mixture at 37°C for 1 hour.
5. Determine the glycosylated level of the samples by SDS-PAGE analysis.



The standard assay was performed by incubating 1 unit of PNGase F and 10 μg of RNase B under the above conditions. SDS-PAGE analysis of RNase B digested with PNGase F.

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Important notes

1. Please fine-tune the input sample volume to find the optimal condition for your assay.
2. Once optimize for the cleavage condition, the cleavage reactions can be scaled up to cleave a large amount of the target fusion protein.

Disclaimer

This product is for research use only and is not intended for diagnostic use.

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