# Native Flavobacterium meningosepticum PNGase F

**Cat. No.** PNGase F-01F **Lot. No.** (See product label)

## SPECIFICATION

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| **Product Overview** | PNGase F is purified from Flavobacterium meningosepticum and is free from protease and Endo F contaminating activities. |
| **Species** | Flavobacterium meningosepticum |
| **Description** | PNGase F is the most effective enzymatic method for removing nearly all N-linked oligosaccharides from glycoproteins. As an amidase, PNGase F can cleave between the innermost GlcNAc and asparagine residues in high-mannose, hybrid, and complex-type oligosaccharides. |
| **Molecular Mass** | 36 kDa |
| **Unit Definition** | One unit is defined as the amount of enzyme required to remove over 95% of the glycan chains from 10 µg of denatured RNase B in a total reaction volume of 10 µL at 37 centigrade for 1 hour. |
| **Unit Definition Assay** | Ten micrograms of RNase B (control substrate) is denatured for 10 minutes at 100 centigrade using 1× Glycoprotein Denaturing Buffer (0.5% SDS, 40 mM DTT). After the addition of NP-40 and GlycoBuffer 2, two-fold diluted PNGase F is added, and the reaction mixture is incubated at 37 centigrade for 1 hour. The reaction products are then separated and observed by SDS-PAGE. 1× Glycoprotein Denaturing Buffer: 0.5% SDS, 40 mM DTT 1× NP-40: 1% NP-40 (dissolved in MilliQ-H2O) |
| **Purity** | ≥ 95% (determined by SDS-PAGE and ESI-MS) |

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| **Heat Inactivation** | 75 centigrade for 10 minutes |
| **Note** | 1. SDS inhibits the activity of PNGase F, so the reaction mixture must contain NP-40. The mechanism by which this nonionic detergent counteracts the inhibitory effect of SDS is not yet clear. 2. To deglycosylate glycoproteins under non-denaturing conditions, it is recommended to increase the enzyme amount and extend the incubation time. 3. PNGase F does not cleave N-linked glycans containing a core α1-3 fucose. |
| **Storage Buffer** | 20 mM Tris-HCl, 50 mM NaCl, 5 mM EDTA, 50% Glycerol, pH 7.5 at 25 centigrade. |
| **Reference** | 1. Maley, F. et al. (1989). Anal. Biochem. 180, 195-204. 2. Tretter, V. et al. (1991). Eur. J. Biochem.. 199, 647-652. 3. Plummer, T.H. Jr. and Tarentino, A.L. (1991). Glycobiology. 1, 257-263. |

## GENE INFORMATION

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| **Synonyms** | PNGase F |

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