

## Deglycosylation

Product	GlycoProfile I In-Gel Deglycosylation Kit	GlycoProfile II Ezymatic In-Solution Deglycosylation Kit	GlycoProfile IV Chemical Deglycosylation Kit	Native Enzymatic Deglycosylation Kit	Enzymatic Deglycosylation Kit
<b>Product Number</b>	<b>PP0200</b>	<b>PP0201</b>	<b>PP0510</b>	<b>NDEGLY</b>	<b>EDEGLY</b>
<b>Recommended Sample Size</b>	PAGE gel containing up to 5 mg of glycoprotein	Solutions containing 1-2 mg of glycoprotein	Solutions containing 1-2 mg of glycoprotein	Solutions containing up to 200 mg of glycoprotein	Solutions containing up to 200 mg of glycoprotein
<b>Sample Scale</b>	Minimum of 10 samples	Minimum of 20 reactions	Minimum of 10 reactions	Minimum of 10 reactions	Minimum of 10 reactions
<b>Product Description and Applications</b>	This kit includes PNGase F, the most common enzyme used for removal of N-linked glycans, and trypsin for tryptic digestion of the core protein. The conditions are optimized to provide a convenient and reproducible method of <i>in-gel</i> removal of N-linked glycans from glycoproteins and <i>digestion</i> of the core protein with trypsin. The samples can then be desalted and concentrated for analysis by MALDI-TOF-MS or ESI-MS. This kit also works for N-deglycosylation <i>in solution</i> .	This kit includes PNGase F, which removes N-linked glycans and leaves the protein core essentially intact, except for the conversion of Asn to Asp. The released N-linked glycans are amenable for compositional, structural, and other analyses, while the core protein can be analyzed by MS. The conditions are optimized to provide a convenient and reproducible method to remove N-linked glycans from glycoproteins <i>in solution</i> for subsequent MALDI-TOF MS analysis without interference from any of the reaction components.	This kit utilizes anhydrous trifluoromethanesulfonic acid (TFMS) to remove O- and N-linked glycans from glycoproteins (except the innermost N-linked GlcNAc or GalNAc). There is minimal degradation of the protein core, which can then be recovered for analysis.  The conditions have been optimized to deglycosylate simple or low molecular weight glycoproteins in 30 min without scavenger. For complex or high molecular weight, non-mammalian glycoproteins, anhydrous anisole is provided as scavenger to ensure the highest protein yield as possible.	The NDEGLY kit consists of three types of endoglycosidases (F1, F2, and F3) and is designed for the removal of N-linked oligosaccharides from PNGase F-resistant native proteins. Endoglycosidases F1, F2, and F3 are less sensitive to protein conformation than PNGase F and are more suitable for removal of all classes of N-linked oligosaccharides without prior denaturation of the protein.	The EDEGLY kit contains all enzymes and reagents needed to completely remove all N- and simple O-linked carbohydrates from glycoproteins under native or denaturing conditions. Additional enzymes and reagents are included for cleavage of complex core 2 O-linked carbohydrates including those containing polyactosamine. The core protein remains intact and can be amenable for structure and function studies or MS analysis.
<b>Features and Benefits</b>	<ul style="list-style-type: none"> <li>In-gel deglycosylation and digestion avoids extra preparative steps</li> <li>Highly purified enzymes to prevent unwanted activities and products</li> </ul>	<ul style="list-style-type: none"> <li>Reagents are optimized for direct MS analysis without extra clean-up step</li> <li>Highly purified enzymes to prevent unwanted activities and products</li> </ul>	<ul style="list-style-type: none"> <li>Complete deglycosylation in as short as 30 min for increased throughput</li> <li>Minimal degradation of protein core for more reliable MS data</li> </ul>	<ul style="list-style-type: none"> <li>Glycoproteins are deglycosylated in their native state</li> <li>Core protein is suitable for structure function studies or MS analysis</li> </ul>	<ul style="list-style-type: none"> <li>Single reaction at neutral pH eliminates pH adjustment for each glycosidase reaction</li> <li>Native or denaturing conditions allow flexibility for downstream process</li> </ul>
<b>Components</b>	<ul style="list-style-type: none"> <li>Destaining Solution, reconstitutes to 10 ml (D0316)</li> <li>Proteomics Grade PNGase F, 50 units (P7367)</li> <li>Proteomics Grade Trypsin, 20 mg (P6567)</li> <li>Trypsin Solubilization Reagent, 1 ml (T2073)</li> <li>Trypsin Reaction Buffer, reconstitutes to 11 ml (R3527)</li> <li>Invertase Glycoprotein standard, 0.5 mg (I0408)</li> <li>Peptide Extraction Solution, 10 ml (P0743)</li> <li>Acetonitrile, Biotech Grade, 50 ml (494445)</li> </ul>	<ul style="list-style-type: none"> <li>Proteomics Grade PNGase F, 50 units (P7367)</li> <li>Ribonuclease B glycoprotein standard, 0.5 mg (P7884)</li> <li>10X Reaction Buffer, 158 mg of ammonium bicarbonate (I1283)</li> <li>Octyl β-D-glucopyranoside, 100 mg (O9882)</li> <li>2-Mercaptoethanol, 0.90 ml (M3148)</li> </ul>	<ul style="list-style-type: none"> <li>Trifluoromethanesulfonic acid, anhydrous, 5 x 1.0 g (347817)</li> <li>Ribonuclease B Glycoprotein Standard, 3 x 1.0 mg (R1153)</li> <li>Pyridine Solution, 60%, 1 x 10 ml (P5496)</li> <li>Bromophenol Blue Solution, 0.2%, 1 x 0.5 ml (B1560)</li> <li>Anisole, anhydrous, 5 x 1 ml (296295)</li> <li>Reaction Vials with Caps, 10 each (27265/27273)</li> </ul>	<ul style="list-style-type: none"> <li>Endoglycosidase F1, 0.3 unit (E9762)</li> <li>Endoglycosidase F2, 0.1 unit (E0639)</li> <li>Endoglycosidase F3, 0.1 unit (E2264)</li> <li>Endoglycosidase F1 Reaction Buffer, 200 ml (R9025)</li> <li>Endoglycosidase F2 and F3 Reaction Buffer, 200 ml (R9150)</li> </ul>	<ul style="list-style-type: none"> <li>PNGase F, 20 μl, 0.3 unit (P2619)</li> <li>O-Glycosidase, 20 μl (G1163)</li> <li>α-2(3,6,8,9)-Neuraminidase, 20 μl (N8271)</li> <li>Fetuin Control, 10 mg/ml solution, 0.5 mg (F4301)</li> <li>5X Reaction Buffer, 0.2 ml (R2651)</li> <li>Denaturation Solution, 0.1 ml (D6439)</li> <li>Triton X-100, 15% Solution, 0.1 ml (T3319)</li> <li>β-1,4-Galactosidase, 20 μl (G0413)</li> <li>β-N-Acetylglucosaminidase, 20 μl (A6805)</li> </ul>
<b>Storage Temperature</b>	2-8 °C	2-8 °C	2-8 °C	4 °C	4 °C
<b>Shelf Life of Unused Product</b>	Minimum of 1 year	Minimum of 1 year	Minimum of 1 year	Minimum of 1 year	Minimum of 1 year

**Complete kits for highly specific deglycosylation**