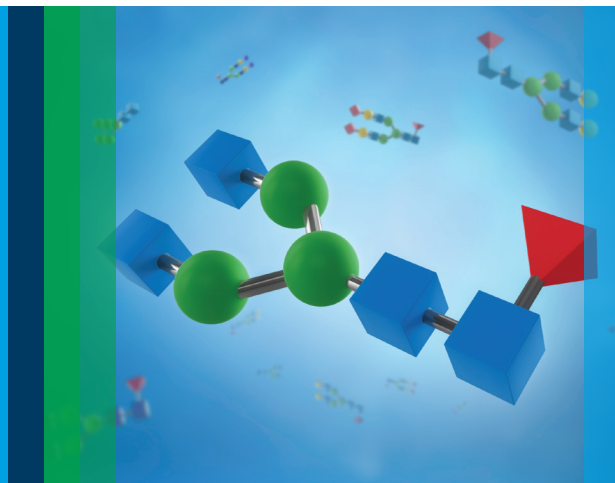


Push Your Protein Analysis to New Levels of Performance

Agilent AdvanceBio Glycoenzymes

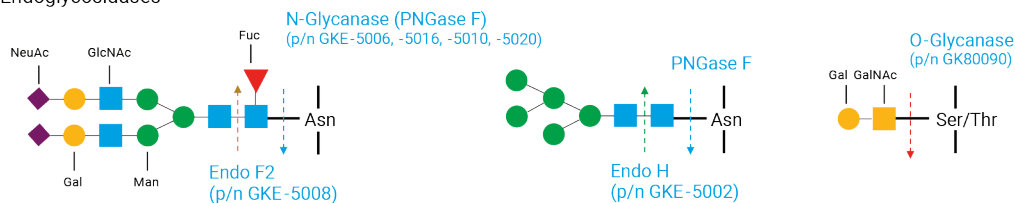


AdvanceBio glycoenzymes are ideal for use with glycan assays, protein modification assays, and sequencing studies when used together.

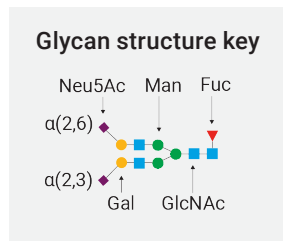
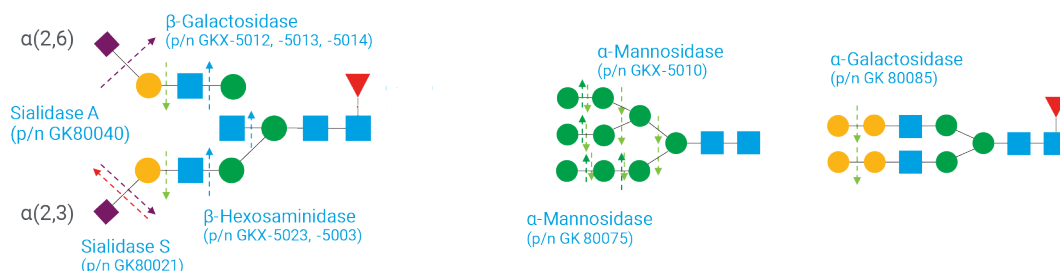
<p>Endoglycosidases</p>	<p>Release oligosaccharides from glycoproteins and other substrates. These enzymes are useful for deglycosylating glycoproteins before analysis, or for releasing N-glycans for labeling and analysis.</p>
<p>Exoglycosidases</p>	<p>Glycoside hydrolase enzymes that cleave the glycosidic bonds at the terminal residues. These enzymes are useful when studying isolated glycans, glycolipids, and glycoproteins. Linkage-specific exoglycosidases may also be used for sequencing of oligosaccharides.</p>

Specificities for selected endoglycosidases (A) and exoglycosidases (B)

A. Endoglycosidases



B. Exoglycosidases



Endoglycosidases

Endoglycosidases cleave within a glycan structure. N-glycanase (PNGase F, technically an asparagine amidase) is widely used to study released glycans and to generate de-N-glycosylated protein, because it releases most intact N-glycans.

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Part Number	Pack Size	Enzyme Description	Activity/Concentration	Specificity	Native/Recombinant
GKE-5002	30 mU	Endoglycosidase H	≥ 0.15 U/ml	Cleaves within the N, N'-diacetylchitobiose (GlcNAc-GlcNAc) core of high mannose and some hybrid type N-glycans	Recombinant
GKE-5003	100 mU	PNGase F	≥ 2 U/ml	Releases intact N-glycans by cleaving between the innermost GlcNAc and Asn	Native
GKE-5006A GKE-5006A-05 GKE-5006B GKE-5006B-1 GKE-5006D	100 mU 5 x 100 mU 200 mU 5 x 200 mU 1 U	N-Glycanase (PNGase F)	≥ 2.5 U/ml	Releases intact N-glycans by cleaving between the innermost GlcNAc and Asn	Recombinant
GKE-5008	6 mU	Endoglycosidase F2	≥ 100 mU/ml	Cleaves within the chitobiose (GlcNAc-GlcNAc) core of high mannose and biantennary complex type N-glycans	Recombinant
GKE-5010B GKE-5010B-2 GKE-5010D	400 mU 5 x 400 mU 1 U	N-Glycanase-plus (PNGase F)	≥ 10 U/ml	Releases intact N-glycans by cleaving between the innermost GlcNAc and Asn	Recombinant
GKE-5016A GKE-5016A-05 GKE-5016B GKE-5016B-1 GKE-5016D	100 mU 5 x 100 mU 200 mU 5 x 200 mU 1 U	N-Glycanase (PNGase F, EDTA-free)	≥ 2.5 U/ml	Releases intact N-glycans by cleaving between the innermost GlcNAc and Asn	Recombinant
GKE-5020B GKE-5020B-5 GKE-5020D	400 mU 5 x 400 mU 1 U	N-Glycanase-Ultra (PNGase F, EDTA-free)	≥ 10 U/ml	Releases intact N-glycans by cleaving between the innermost GlcNAc and Asn	Recombinant
GKE-5011A GKE-5011B	2 mU 10 mU	PNGase A	Lyophilized	Cleaves N-linked glycans from glycopeptides, including glycans with α(1, 3)-linked core fucose as seen in insects and plants	Native
GK80090	50 mU	O-Glycanase	≥ 1.25 U/ml	Releases unsubstituted Ser/Thr-linked GalGalNAc from proteins	Recombinant

Confidently detect low-abundance glycan species

[AdvanceBio Gly-X sample preparation](#) offers a high level of reproducibility and throughput, with a one-hour preparation time for [InstantPC](#) and two hours for [2-AB Express](#). What's more, InstantPC delivers improved fluorescence response and MS ionization efficiency.

Exoglycosidases

Exoglycosidases cleave exposed or "terminal" monosaccharide residue from glycans. Commonly used exoglycosidases include galactosidase for deglycosylation and sialidase (neuraminidase) for desialylation of released glycans, glycoproteins, or cells.

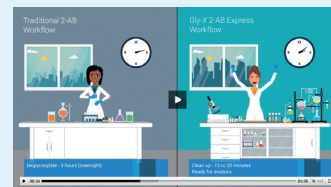
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Part Number	Pack Size	Enzyme Description	Activity/Concentration	Specificity	Native/Recombinant
GK80040	1 U	Sialidase A	≥ 5 U/ml	Releases α(2, 3)-, α(2, 6)-, α(2, 8)-, and α(2, 9)-linked sialic acid from oligosaccharides and glycoproteins	Recombinant
GK80045	1 U	Sialidase A-51	≥ 5 U/ml	Releases α(2, 3)-, α(2, 6)-, α(2, 8)-, and α(2, 9)-linked sialic acid from oligosaccharides and glycoproteins	Recombinant
GK80046	1 U	Sialidase A-66	≥ 5 U/ml	Releases α(2, 3)-, α(2, 6)-, α(2, 8)-, and α(2, 9)-linked sialic acid from oligosaccharides and glycoproteins	Recombinant
GK80043	300 mU each isoform	Sialidase A Sampler Kit	≥ 5 U/ml	Releases α(2, 3)-, α(2, 6)-, α(2, 8)-, and α(2, 9)-linked sialic acid from oligosaccharides and glycoproteins	Recombinant
GK80030	1 U	Sialidase C	≥ 10 U/ml	Releases α(2-3, 6)-linked sialic acid from oligosaccharides, glycoproteins, complex carbohydrates	Recombinant
GK80021	3 U	Sialidase S	Lyophilized	Releases α(2-3)-linked sialic acid from complex carbohydrates	Recombinant
GK80085	5 U	α(1-3, 4, 6)-Galactosidase	≥80 U/ml	Releases nonreducing terminal α(1-3, 4, 6)-linked galactose from oligosaccharides	Recombinant
GKX-5012	5 U	β(1-4, 6)-Galactosidase	Lyophilized	Enzyme hydrolyzes nonreducing terminal Galβ(1-6)GlcNAc and Gal β(1-4)GlcNAc. Galβ(1-3)GlcNAc is hydrolyzed slowly	Native
GKX-5013	0.5 U	β(1-3, 4)-Galactosidase	≥ 5 U/ml	Enzyme hydrolyzes nonreducing terminal galactose β(1-3) and β(1-4) linkages	Native
GK80080	200 mU	β(1-4)-Galactosidase	≥2 U/ml	Releases nonreducing terminal β(1-4)-linked galactose from oligosaccharides and glycoproteins	Recombinant
GKX-5003	5 U	β-N-Acetylhexosaminidase	≥ 50 U/ml	Releases nonreducing terminal β(1-2, 3, 4, 6)-linked N-acetylglucosamine (GlcNAc) and N-acetylgalactosamine (GalNAc) residues	Native
GK80050	1.6 U	β-N-Acetylhexosaminidase	≥ 40 U/ml	Enzyme cleaves all nonreducing terminal β-linked N-acetylglucosamine (GlcNAc)	Recombinant
GKX-5023	15 U	β(1-2, 3, 4, 6) N-Acetylhexosaminidase	≥ 300 U/ml	Releases nonreducing terminal β(1-2, 3, 4, 6)-linked N-acetylglucosamine (GlcNAc) and N-acetylgalactosamine (GalNAc) residues	Native
GK80075	2 mU	α(1-2)-Mannosidase	≥ 25 mU/ml	Releases α(1-2)-linked mannose residues from the nonreducing terminus of oligosaccharides	Recombinant
GKX-5010 GKX-5010-50	10 U 5 x 10 U	α(1-2, 3, 6)-Mannosidase	≥ 150 U/ml	Releases nonreducing terminal α(1-2, 3, 6)-linked mannose from oligosaccharides	Recombinant
GK80060	1 U	Sialidase V	≥ 5 U/ml	Releases α(2, 3)-, and α(2, 6)-linked sialic acid from oligosaccharides and glycoproteins. Also shows limited activity toward α(2, 8)-linked sialic acids.	Recombinant

End-to-end workflows for N-glycan sample preparation and analysis

Agilent offers several sample preparation options for N-glycans to support your LC/FLD/MS and CE workflows:

- **AdvanceBio Gly-X**: Sample preparation in just one hour, using a five-minute PNGase F digestion, and InstantPC a glycosylamine labeling dye with high FLD and MS signal.
- **Agilent GlykoPrep**: A spin-based kit, offering a workflow time of three to five hours, based on AssayMAP cartridges.
- Tools that support more traditional methods.



Access other tools to help with your glycan analysis

Visit our glycoscience page to find a wealth of resources including: A catalog of glycan standards and libraries; Workflow ordering guides with recommended columns and supplies with tips for optimal results; Webinars; Videos; Application notes; Plus more.

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agilent_inquiries@agilent.com

Europe

info_agilent@agilent.com

Asia Pacific

inquiry_lsca@agilent.com

DE47298238

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