

# KRISHZYME™

## beta-N-Acetylglucosaminidase F3 ( $\beta$ -N-Acetylglucosaminidase F3)

**REF** : KPGF-008

Ver 2.0

**RIUO**

	For Research & Industrial Use Only		Catalog Number
	Store At		Batch Code
	Manufactured By		Biological Risk
	Expiry Date		Consult Operating Instructions

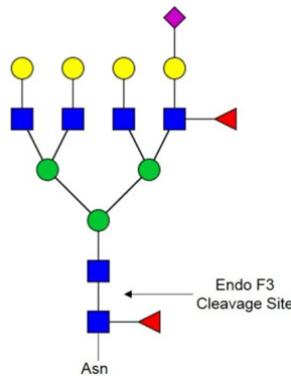
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**Product Description:**

Endo-β-N-acetylglucosaminidase F3 (Endo F3) cleaves in  $\beta(1-4)$  link in between the two core GlcNAcs of asparagine linked glycans. Endo F3 cleaves this link on core-fucosylated structures. Endo F3 can be applied to workflows alone or in conjunction with Krishzyme Swift PNGase F to allow for structural characterization of core-fucosylated glycans in tissues while maintaining spatial localization.



For instance, one major drawback of MALDI Imaging is the inability to differentiate core-fucosylated glycans from outer-arm fucosylated glycans. This issue is alleviated through by using Krishzyme Endo F3 due to its specificity for core-fucosylated structures.

Krishzyme Endo F3 comes in a lyophilized format that is perfectly suitable for use in solution-based analyses. The target core for Krishzyme Endo F3 is alpha-1,6 linked fucosylated Asparagine-linked (N-linked) oligosaccharides (complex).

**Product Size:**

<b>Cat No</b>	<b>Pack Size</b>	<b>Concentration</b>
KPGF-008	800 U / 50 ug	

**Physical Form:**

KRISHZYME™ Endo-β-Acetylglucosaminidase F3 is supplied in a lyophilized format at a concentration of 8 U/μl when reconstituted in 100 μl of dH<sub>2</sub>O. Both native and denatured glycoproteins are compatible for cleaving.

**Reagents Supplied:**

The following reagents are supplied with this product:

<b>Composition</b>	<b>Formula</b>	<b>Concentration</b>
Assay Buffer 1	50 mM CaCl <sub>2</sub> , 500 mM Sodium Acetate, pH 5.5 at 25°C	10X

**Product Source:**

Recombinant enzyme expressed in E.coli.

**Product Quality:**

$\geq 95\%$  purity, as determined by SDS-PAGE. No other exoglycosidase, endoglycosidase, and protease activity were contaminated.

**Unit Definition:**

One unit is defined as the amount of enzyme required to completely deglycosylate 10 ug of denatured IgG following incubation for 10 minutes at 37°C.

**Storage Temperature:**

Store at -20°C. Avoid multiple freeze-thaws.

**Characteristic:**

- Recombinant enzyme with no detectable endoglycosidase or other exoglycosidases contaminating activities
- $\geq 95\%$  purity, as determined by SDS-PAGE
- Optimal activity and stability for up to 12 months
- Glycerol-free for optimal performance in HPLC and mass spectrometry analysis

**Applications:**

- Structural analysis of oligosaccharides
- Glycoprotein deglycosylation
- Removing heterogeneity from glycoproteins

**Suggestions for Use:**

- 1) Combine 1-100 ug of glycoprotein and H<sub>2</sub>O (if necessary) in a total reaction volume of 8 ul.
- 2) Add 1 ul of 10X Assay Buffer 1 to make a 9 ul total reaction volume.
- 3) Add 1ul Endo- $\beta$ -Acetylglucosaminidase, mix gently.
- 4) Incubate at 37°C for 1 hour.

**Notes :**

- The amount of exoglycosidase enzyme required varies when different substrates are used. Start with 1-2 ul for 1-100 ug of glycoprotein for one hour in a 10-25 ul reaction. If there is still undigested material, let the reaction go overnight.
- The reaction can be scaled up linearly.

**References:**

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