

Endo S contents

Catalog #	Description	Size	M. W.	Purity	pH	Storage
GE0801	Endo S	2,500 units, lyophilized	104,088	> 95%	5.5-6.5 optimal	-20°C, up to 12 months
	10X Reaction Buffer 6 (BA1001)	1 mL			5.5	4 to 25°C

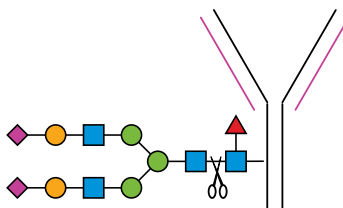
Endo S w/ Ig control contents

Catalog #	Description	Size	M. W.	Purity	pH	Storage
GE0801C	Endo S	2,500 units, lyophilized	104,088	> 95%	5.5-6.5 optimal	-20°C, up to 12 months
	10X Reaction Buffer 6 (BA1001)	1 mL			5.5	4 to 25°C
	Human Ig (GC0101)	0.1 mL (1 mg/mL)	150,000			-20°C, up to 12 months

This product is for research use only and not for resale or for any use in the manufacture of a therapeutic or for any diagnostic purpose

Product description: This product is recombinant Endo- β -N-Acetylglucosaminidase F2 (Endo S; glycosyl hydrolase family 18, EC #3.2.1.96), cloned from *Streptococcus pyogenes* and expressed in *Escherichia coli* with an N-terminal 8xHis tag. The 8xHis tag may be removed by digestion with FasTEV™ (Cat #GE0501), a TEV protease with enhanced stability and catalytic activity.

Endo S catalyzes the cleavage of N-linked glycans from IgG heavy chain, as illustrated below.



This product does not contain any detectable activities of proteases or other glycosidases.

Unit definition: One unit is defined as the amount of Endo S required to deglycosylate > 90% of 2.5 μ g of human immunoglobulin (Ig) in 1 h at 37°C in 25 μ L 1X Reaction Buffer 6 (50 mM NaOAc, 5 mM CaCl₂, pH 5.5).

Product reconstitution: Dissolve the lyophilized Endo S in 100 μ L molecular grade water to make a 25,000 units/mL (Cat #GE0801) solution in enzyme storage buffer (20 mM Tris-HCl, 50 mM NaCl, 1 mM EDTA, pH 7.5). Once reconstituted, store at 4°C for up to 7 days or -20°C for up to 3 months. Aliquoting is recommended to avoid repeated freeze-thaw cycles. Cat #GE0801C includes human Ig (GC0101), a control substrate purified from human serum by Protein A affinity chromatography.

Activity assay:

- Mix the following components in a microfuge tube:

IgG sample, e.g., human Ig (GC0101)	2.5 μ g
10X Reaction Buffer 6 (BA1001)	2.5 μ L
Endo S (GE0801)	1.0-25 units
Molecular grade water	to 25 μ L final volume
- Incubate at 37°C for 1 h.
- Analyze by SDS-PAGE mobility shift or other method to determine the extent of deglycosylation.

Reference: Trastoy B, et al. Proc Natl Acad Sci U S A. 2014 May 6;111(18):6714-9. PMID: 24753590.

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