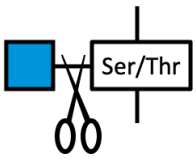
_O_-GlcNAcase contents

Catalog #	Description	Size	M. W.	Purity	pH	Storage
GE0401	*O*-GlcNAcase	1,000 units, lyophilized	52,000	> 95%	7.5 optimal	-20°C, up to 6 months
BA0801	10X Reaction Buffer 4	1 mL			7.5	4 to 25°C

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 a recombinant *O*-GlcNAcase or OGA (glycosyl hydrolase family GH84, EC 3.2.1.169), cloned from *Oceanicola granulosus* and expressed in *Escherichia coli* with an *N*-terminal 6xHis tag. It releases *O*-linked β-*N*-acetylglucosamine (GlcNAc) from serine and threonine residues of glycoproteins and glycopeptides.



This product does not contain any detectable activities of proteases, exo-β-*N*-acetylglucosaminidase, or other glycosidases.

Unit definition: One unit is defined as the amount of *O*-GlcNAcase required to catalyze the release of 1 nmole *p*-nitrophenol (pNP) from *p*-nitrophenyl-*N*-acetyl-β-D-glucosaminide (pNP-β-GlcNAc) per min at 37°C in 100 µL 1X Reaction Buffer 4 (50 mM Tris, 100 mM NaCl, pH 7.5).

Product reconstitution: Dissolve the lyophilized product in 100 µL of molecular grade water to make a 10,000 units/mL (Cat #GE0401) solution in 1X Reaction Buffer 4. Once reconstituted, store the enzyme at 4°C for up to 5 days or at -20°C for up to 3 months. Aliquoting is recommended to avoid repeated freeze-thaw cycles.

Activity assay: One unit of enzyme is added to 100 µL of 500 µM pNP-GlcNAc in 1X Reaction Buffer 4 at 37°C, followed by real-time measurements of absorption at 405 nm every 5 s for 90 s.

Reference: Schimpl M, et al. Biochem J. 2010 Nov 15;432(1):1-7. PMID: 20863279.

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