

Recombinant Human Glycogen Phosphorylase B

Cat. No. PYGB-366H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human Glycogen Phosphorylase produced in <i>E. Coli</i> is a single, non-glycosylated, polypeptide chain. The Human GPBB mature chain: 2 - 843 aa; that is a total of 842 aa having a molecular mass of 96695.96 Dalton. The theoretical pI is 6.40. The GPBB is purified by proprietary chromatographic techniques.
Species	Human
Source	E.coli
Protein Length	2-843 a.a.
Description	Glycogen phosphorylase is one of the phosphorylase enzymes (EC2.4.1.1). It breaks up glycogen into glucose subunits. Glycogen is left with one less glucose molecule, and the free glucose molecule is in the form of glucose-1-phosphate. In order to be used for metabolism, it must be converted to glucose-6-phosphate by the enzyme phosphoglucomutase. Glycogen phosphorylase can only act on linear chains of glycogen (a 1-4 glycosidic linkage). Its work will immediately come to a halt four residues away from a 1-6 branch (which are exceedingly common in glycogen). In these situations, a debranching enzyme is necessary, which will straighten out the chain in that area. Additionally, an alpha 1-6 glucosidase enzyme is required to break the remaining 1-6 residue that remains in the new linear chain. After all this is done, glycogen phosphorylase can continue.
Physical Appearance	Sterile Filtered colourless liquid formulation.

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Formulation	0.8 mg/1ml, each mg of protein contains 50% glycerol.
Applications	Immunoassays and western blot.
Purity	Greater than 85.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.
Storage	GPBB although stable at 10°C for 7 days, should be stored desiccated below -18°C. Please prevent freeze-thaw cycles.

GENE INFORMATION

Gene Name	PYGB phosphorylase, glycogen; brain [Homo sapiens]
Synonyms	PYGB; phosphorylase, glycogen; brain; MGC9213; glycogen phosphorylase B; EC 2.4.1.1; GPBB
Gene ID	5834
mRNA Refseq	NM_002862
Protein Refseq	NP_002853
MIM	138550
UniProt ID	P11216
Chromosome Location	20p11.2-p11.1
Pathway	Insulin signaling pathway; Starch and sucrose metabolism

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Function

glycogen phosphorylase activity; pyridoxal phosphate binding; transferase activity, transferring glycosyl groups

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