Recombinant Human Glycogen Phosphorylase B

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

SPECIFICATION

Product Overview	Recombinant Human Glycogen Phosphorylase produced in*E.Coli*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
ProteinLength	2-843 a.a.
Description	Glycogen phosphorylase is one of the phosphorylaseenzymes (EC2.4.1.1). It breaks up glycogeninto glucosesubunits. Glycogenis left with one less glucosemolecule, and the free glucosemolecule is in the form of glucose-1-phosphate. In order to be used for metabolism, it must be converted to glucose-6-phosphateby the enzyme phosphoglucomutase. Glycogen phosphorylase can only act on linearchainsof 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 enzymeis necessary, which will straighten out the chain in that area. Additionally, an alpha 1-6 glucosidaseenzymeis 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 formualtion.

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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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