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# **GPBB Human**

Description: Glycogen Phosphorylase Human Recombinant 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 pl is 6.40.The GPBB is purified by proprietary chromatographic techniques.

Catalog #:ENPS-289

For research use only.

Synonyms: Glycogen phosphorylase brain form, EC 2.4.1.1, GPBB, MGC9213, PYGB.

Source: Escherichia Coli.

Physical Appearance: Sterile Filtered colourless liquid formulation.

Purity: Greater than 85.0% as determined by:(a) Analysis by RP-HPLC.(b) Analysis by SDS-PAGE.

#### Formulation:

Each mg of protein contains 50% glycerol.

### Stability:

GPBB although stable at 10°C for 7 days, should be stored below -18°C. Please prevent freeze-thaw cycles.

### Usage:

NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

# Applications:

Immunoassays and western blot.

## Introduction:

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. An insulinstimulated enzyme known as phosphoprotein phosphatase (PP-1) inactivates glycogen phosphorylase to prevent glycogen break up.GPBB - a sensitive marker for the AMI diagnosis within 4 hours after the onset of chest pain. It has also been shown that GPBB is increased in a considerable proportion of AMI patients within 2-3 hours from chest pain onset. GPBB is increased early in patients with unstable angina. GPBB can also be a sensitive marker for the detection of peri-operative myocardial ischaemia and infarction in patients undergoing coronary artery bypass grafting.

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