



Product Data Sheet

Cat # RP-371

Recombinant Human Glycogen Phosphorylase

Size: 5 ug

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, this 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. An insulin stimulated 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.

Usage: This item is for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

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Source: Escherichia Coli. Glycogen Phosphorylase Human Recombinant produced in E. Coli is a single, non-glycosylated, polypeptide chain having a molecular mass of 97 kDa. The GPBB is purified by proprietary chromatographic techniques. 0.8 mg/1ml, each mg of protein contains 50% glycerol.

Applications and Suggested Dilutions: Greater than 85.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE. Immunoassays and western blot

Storage and Stability: GPBB although stable at 10°C for 7 days, should be stored desiccated below -18°C. **Please prevent freeze-thaw cycles.**