

BPGM Human

Description: BPGM Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 267 amino acids (1-259 a.a.) and having a molecular mass of 31 kDa. The BPGM is fused to an 8 amino acid His Tag at C-Terminus and purified by proprietary chromatographic techniques.

Catalog #: ENPS-512

For research use only.

Synonyms: Bisphosphoglycerate mutase, EC 5.4.2.4, BPGM, 2,3-bisphosphoglycerate mutase erythrocyte, 2,3-bisphosphoglycerate synthase, BPG-dependent PGAM.

Source: Escherichia Coli.

Physical Appearance: Sterile Filtered clear colorless solution.

Amino Acid Sequence: MSKYKLIMLR HGEGAWNKEN RFCSWVDQKL NSEGMEEARN
CGKQLKALNF EFDLVFTSVL NRSIHTAWLI LEELGQEWVP VESSWRLNERHYGALIGLNR
EQMALNHGEE QVRLWRRSYN VTPPIEESH PYYQEIYNDR RYKVC DVPLD QLPRSESLKD
VLERLLPYWN ERIAPEVLRG KTLISAHGN SSRALLKHLE GISDEDIINI TLPTGVPILL
ELDENLRAVG PHQ

Purity: Greater than 95% as determined by SDS-PAGE.

Formulation:

The BPGM solution contains 20mM Tris-HCl pH-8, 1mM DTT, and 10% glycerol.

Stability:

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple 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.

Introduction:

BPGM is found at high concentrations in red blood cells where it binds to and decreases the oxygen affinity of hemoglobin. PGM deficiency increases the oxygen affinity of cells. BPGM is a multifunctional enzyme that catalyzes 2,3-DPG synthesis through its synthetase activity, and 2,3-DPG degradation using its phosphatase activity. BPGM has phosphoglycerate phosphomutase activity. Mutations in BPGM cause hemolytic anemia. BPGM catalyzes the reaction of EC 5.4.2.1 (mutase) and EC 3.1.3.13 (phosphatase), but with a reduced activity.

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