Bisphosphoglycee Mutase (BPGM) ELISA Kit for Sheep

PRODUCT OVERVIEW

Product Name	Bisphosphoglycee mutase (BPGM), ELISA Kit
Full Product Name	Sheep Bisphosphoglycee mutase (BPGM) ELISA Kit
Product Gene Name	BPGM elisa kit
Species Reactivity	Sheep
Samples	Serum, plasma, Cell Culture Supernatants, body fluid and tissue homogenate
Preparation and Storage	Store all reagents at 2-8 degree C.
Molecular Weight	30,005 Da
OMIM	613896
Sample Preparation	We suggest pre-experimenting with neat (undiluted) samples, 1:2 or 1:4 dilutions. Please avoid diluting your samples more than 1:10 as it would exceed the dilution limit set for this kit. If the expected concentration of the target is beyond the detection range of the kit, please contact our technical support team
ISO Certification	Manufactured in an ISO 13485:2016 Certified Laboratory.
Related Product Information for BPGM elisa kit	MBS7212445 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Bisphosphoglycee mutase (BPGM) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing BPGM. The ELISA analytical biochemical technique of the MBS7212445 kit is based on BPGM antibody-BPGM antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect BPGM antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, BPGM. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).
Other Notes	Small volumes of BPGM elisa kit vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for BPGM. It may not necessarily be applicable to this product.

NCBI GI #	641386940
NCBI GeneID	669
NCBI Accession #	NP_001280014.1
UniProt Secondary Accession #	A4D1N9
UniProt Related Accession #	P07738
GenBank Nucleotide #	NM_001293085.1
NCBI Official Full Name	bisphosphoglycerate mutase
NCBI Official Synonym Full Names	2,3-bisphosphoglycerate mutase
NCBI Official Symbol	BPGM
NCBI Official Synonym Symbols	DPGM
UniProt Protein Name	Bisphosphoglycerate mutase

UniProt Synonym Protein Names	2,3-bisphosphoglycerate mutase, erythrocyte; 2,3-bisphosphoglycerate synthase (EC:3.1.3.13, EC:5.4.2.11); 2,3-diphosphoglycerate mutase; DPGM; BPG-dependent PGAM
Protein Family	Bisphosphoglycerate mutase
UniProt Gene Name	BPGM
UniProt Synonym Gene Names	BPGM; DPGM
UniProt Entry Name	PMGE_HUMAN
NCBI Protein Information	bisphosphoglycerate mutase; BPG-dependent PGAM; 2,3-diphosphoglycerate mutase; 2,3-bisphosphoglycerate synthase; erythrocyte 2,3-bisphosphoglycerate mutase; 2,3-bisphosphoglycerate mutase, erythrocyte
NCBI Summary for BPGM	2,3-diphosphoglycerate (2,3-DPG) is a small molecule found at high concentrations in red blood cells where it binds to and decreases the oxygen affinity of hemoglobin. This gene encodes a multifunctional enzyme that catalyzes 2,3-DPG synthesis via its synthetase activity, and 2,3-DPG degradation via its phosphatase activity. The enzyme also has phosphoglycerate phosphomutase activity. Deficiency of this enzyme increases the affinity of cells for oxygen. Mutations in this gene result in hemolytic anemia. Multiple alternatively spliced variants, encoding the same protein, have been identified. [provided by RefSeq, Sep 2009]
UniProt Comments for BPGM	BPGM: Plays a major role in regulating hemoglobin oxygen affinity by controlling the levels of its allosteric effector 2,3- bisphosphoglycerate (2,3-BPG). Also exhibits mutase (EC 5.4.2.1) and phosphatase (EC 3.1.3.13) activities. Defects in BPGM are the cause of bisphosphoglycerate mutase deficiency (BPGMD). A disease characterized by hemolytic anemia, splenomegaly, cholelithiasis and cholecystitis. Belongs to the phosphoglycerate mutase family. BPG- dependent PGAM subfamily. Protein type: EC 5.4.2.11; Carbohydrate Metabolism - glycolysis and gluconeogenesis; Isomerase; EC 3.1.3.13; Phosphatase (non-protein); EC 5.4.2.4 Chromosomal Location of Human Ortholog: 7q33 Molecular Function: phosphoglycerate mutase activity; bisphosphoglycerate mutase activity; bisphosphoglycerate phosphatase activity Biological Process: erythrocyte development; glycolysis; dephosphorylation; carbohydrate metabolic process; respiratory gaseous exchange Disease: Bisphosphoglycerate Mutase Deficiency
Research Articles on BPGM	**1.** 1.94 A resolution X-ray structure of bisphosphoglycerate mutase is presented, focusing on the dynamic nature of key ligand-binding residues and their interaction with the inhibitor citrate
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