PGK2 Cell Lysate – Tissue Lysate

PRODUCT OVERVIEW

Product Name	PGK2, Cell Lysate
Full Product Name	Human PGK2 Baculovirus-Insect cells Overexpression Lysate
Product Gene Name	PGK2 cell lysate
Product Synonym Names	Human Phosphoglycerate Kinase 2/PGK2 Insect Cell Lysate (WB positive control); phosphoglycerate kinase 2; Human dJ417L20.2 Overexpression Lysate; Human HEL-S-272 Overexpression Lysate; Human PGKB Overexpression Lysate; Human PGKPS Overexpression Lysate
Sequence	Ser2-Met41 7
Host	Baculovirus-Insect cells
Form/Format	1x Sample Buffer (1x modified RIPA buffer+1x SDS loading buffer). Modified RIPA Lysis Buffer: 50 mM Tris-HCl pH 7.4, 150 mM NaCl, 1mM EDTA, 1% Triton X-100, 0.1% SDS, 1% Sodium deoxycholate, 1mM PMSF.
Preparation and Storage	Store at 4 degree C for up to twelve months from date of receipt. After re-dissolution, aliquot and store at -80 degree C for up to twelve months. Avoid repeated freeze-thaw cycles. Samples are stable for up to twelve months from date of receipt.
Molecular Weight	44,796 Da
Sequence Positions	434aa
OMIM	172270
3D Structure	ModBase 3D Structure for P07205
Species	Human
Recommend Usage	1. Centrifuge the tube for a few seconds and ensure the pellet at the bottom of the tube.**2. Re-dissolve the pellet using 200uL pure water and boil for 2-5 min.**
Sequence Construction	A DNA sequence encoding the human PGK2 (NP_620061.2) (Ser2-Met417) was expressed with a polyhistide tag at the N-terminus.
Preparation Method	Cell lysate was prepared by homogenization of the over-expressed cells in ice-cold modified RIPA Lysis Buffer with cocktail of protease inhibitors. Cell debris was removed by centrifugation. Protein concentration was determined by Bradford assay (protein assay, Microplate Standard assay). The cell lysate was boiled for 5 min in 1 x SDS loading buffer (50mM Tris-HCl pH 6.8, 12.5% glycerol, 1% sodium dodecylsulfate, 0.01% bromophenol blue) containing 5% b-mercaptoethanol, and lyophilized.
Applications Tested/Suitable for PGK2 cell lysate	Western Blot (WB)
Application Notes for PGK2 cell lysate	WB: Use at an assay dependent dilution.
Related Product Information for PGK2 cell lysate	This Human PGK2 overexpression lysate was created in Baculovirus-Insect cells and intented for use as a Western blot (WB) positive control. Purification of PGK2 protein from the overexpression lysate was verified.
Other Notes	Small volumes of PGK2 cell lysate 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.
Searchable Terms for PGK2 purchase	MBS8115462 is a cell lysate targeting PGK2. Also known as Human PGK2 Baculovirus-Insect cells Overexpression Lysate. Host: Baculovirus-Insect cells.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PGK2. It may not necessarily be applicable to this product.

NCBI GI #	31543397
NCBI GeneID	5232
NCBI Accession #	NP_620061.2
UniProt Primary Accession #	P07205
UniProt Secondary Accession #	Q9H107; B2R6Y8
UniProt Related Accession #	P07205
GenBank Nucleotide #	NM_138733.4
NCBI Official Full Name	phosphoglycerate kinase 2
NCBI Official Synonym Full Names	phosphoglycerate kinase 2
NCBI Official Symbol	PGK2
NCBI Official Synonym Symbols	PGKB; PGKPS; HEL-S-272; dJ417L20.2
UniProt Protein Name	Phosphoglycerate kinase 2
UniProt Synonym Protein Names	Phosphoglycerate kinase, testis specific
Protein Family	2-phosphoglycerate kinase
UniProt Gene Name	PGK2
UniProt Synonym Gene Names	PGKB
UniProt Entry Name	PGK2_HUMAN
NCBI Protein Information	phosphoglycerate kinase 2; epididymis secretory protein Li 272; phosphoglycerate kinase autosomal pseudogene; phosphoglycerate kinase, testis specific
NCBI Summary for PGK2	This gene is intronless, arose via retrotransposition of the phosphoglycerate kinase 1 gene, and is expressed specifically in the testis. Initially assumed to be a pseudogene, the encoded protein is actually a functional phosphoglycerate kinase that catalyzes the reversible conversion of 1,3-bisphosphoglycerate to 3-phosphoglycerate, during the Embden-Meyerhof-Parnas pathway of glycolysis, in the later stages of spermatogenesis.[provided by RefSeq, May 2010]
UniProt Comments for PGK2	PGK2: This gene is intronless, arose via retrotransposition of the phosphoglycerate kinase 1 gene, and is expressed specifically in the testis. Initially assumed to be a pseudogene, the encoded protein is actually a functional phosphoglycerate kinase that catalyzes the reversible conversion of 1,3-bisphosphoglycerate to 3-phosphoglycerate, during the Embden-Meyerhof-Parnas pathway of glycolysis, in the later stages of spermatogenesis.[provided by RefSeq, May 2010] Protein type: Carbohydrate Metabolism - glycolysis and gluconeogenesis; EC 2.7.2.3; Kinase, other Chromosomal Location of Human Ortholog: 6p12.3 Cellular Component: cytoplasm; nucleus Molecular Function: phosphoglycerate kinase activity; ATP binding Biological Process: sperm motility; glycolysis; phosphorylation
Research Articles on PGK2	**1.** Data from studies in transgenic mice suggest that Pgk2 core promoter elements are required to direct demethylation of DNA and reconfiguration of nucleosomes in testis during sexual maturation and spermatogenesis.

Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.
Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/cell-lysate/pgk2/8115462