
Product Data Sheet

Product Name: PGK1 Mouse
 Cat. No.: GP22580
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Phosphoglycerate kinase 1 (EC:2.7.2.3); Pgk1; Pgk-1.		
Amino Acid Sequence	MGSSHHHHHH SGLVPRGSH MGSMSLSNK LTLDKLDVKG KRVMRVDFN VPMKNNQITN NQRIKAAVPS IKFCLDNGAK SVVLMShLGR PDGVPMPDKY SLEPVAAELK SLLGKDVFL KDCVGPEVEN ACANPAAGTV ILLENLRFHV EEGKGKGDAS GNKVKAEPK IDAFRASLSK LGDVYVND AF GTAHRHSSM VGVNLPQKAG GFLMKKELNY FAKALES PER PFLAILGGAK VADKIQLINN MLDKVNEMII GGGMAFTFLK VLNNMEIGTS LYDEEGAKIV KDLMSKA EKN GVKITLPVDF VTADKFDENA KTGQATVASG IPAGWMGLDC GTESSK KYAE AVGRAKQIVW NGPVG VFEWE AFARGTKSLM DEVVKATSRG CITIIGGGDT ATCCA KW NTE DKVSHVSTGG GASLELLEGK VLP GVDALSN V.		
Formulation	PGK1 protein solution (1mg/ml) containing Phosphate buffered saline (pH7.4), 10% glycerol and 1mM DTT.		

Introduction

PGK1 is an X-linked enzyme that has a major role in the glycolytic pathway. PGK1 is a glycolytic enzyme which catalyzes the conversion of 1,3-diphosphoglycerate to 3-phosphoglycerate, generating an ATP molecule. PGK1 may also act as a cofactor for polymerase alpha. Defects in the PGK1 gene are usually associated with chronic hemolytic anemia, though it can be accompanied by either mental retardation or muscular disease (rhabdomyolysis). Overexpression of PGK1 and its signalling targets are possibly an expression-pathway in diffuse primary gastric carcinomas promoting peritoneal dissemination. It was shown that PGK1 is differentially expressed in the dorsolateral prefrontal cortex from patients with schizophrenia.

Biological Activity

Specific activity: > 500 units/mg. One unit will convert 1 umole of 1.3-

Caution: Product has not been fully validated for medical applications. For research use only.

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Bisphosphoglycerate to 3-PGA per minute at pH 8.0 at 37°C .

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). Please avoid freeze thaw cycles.

Background

PGK1 Mouse Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 441 amino acids (1-417 a.a) and having a molecular mass of 47.1kDa. PGK1 is fused to a 24 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

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