

32-6993: PGK1 Mouse

Application : Functional Assay

Alternative Name : Phosphoglycerate kinase 1 (EC:2.7.2.3), Pgk1, Pgk-1.

Description

Source: Escherichia Coli.

Sterile Filtered clear solution.

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.

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.

Product Info

Amount : 5 µg / 25 µg

Purification : Greater than 90% as determined by SDS-PAGE.

Content : PGK1 protein solution (1mg/ml) containing Phosphate buffered saline (pH7.4), 10% glycerol and 1mM DTT.

Storage condition : 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.

Amino Acid : MGSSHHHHHH SSGLVPRGSH MGSMSLSNK LTLDKLDVKG KRVVMRVDFN VPMKNNQITN
NQRIKAAVPS IKFCLDNGAK SVVLMShLGR PDGVMPDPKY SLEPVAAELK SLLGKDVFL KDCVGPEVEN
ACANPAAGTV ILLENLRFHV EEKGKGDAS GNKVKAEPK IDAFRASLSK LGDYYVND AF GTAHRAHSSM
VGVNLPQKAG GFLMKKELNY FAKALES PER PFLAILGGAK VADKIQLINN MLDKVNEMII GGGMAFTFLK
VLNNMEIGTS LYDEEGAKIV KDLMSKAEKN GVKITLPVDF VTADKFDENA KTQATVASG IPAGWMGLDC
GTESSKKYAE AVGRAKQIVW NGPVGVFEWE AFARGTKSLM DEVVKATSRG CITIIGGGDT ATCCAKWNT
DKVSHVSTGG GASLELLEGK VLPGVDA LSN V.

Application Note

Specific activity: > 500 units/mg. One unit will convert 1 umole of 1,3-Bisphosphoglycerate to 3-PGA per minute at pH 8.0 at 37°C.