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Recombinant human GAPDH protein

Catalog Number: ATGP3433

PRODUCT INFORMATION

Expression system
E.coli

Domain
1-335aa

UniProt No.
P04406

NCBI Accession No.
NP_002037

Alternative Names
Glyceraldehyde-3-phosphate dehydrogenase isoform 1, Peptidyl-cysteine S-nitrosylase GAPDH, GAPD, G3PD

PRODUCT SPECIFICATION

Molecular Weight
36 kDa (335aa) confirmed by MALDI-TOF

Concentration
1mg/ml (determined by Bradford assay)

Formulation
Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 1mM DTT, 1mM EDTA, 20% glycerol

Purity
> 95% by SDS-PAGE

Endotoxin level
< 1 EU per 1ug of protein (determined by LAL method)

Biological Activity
Specific activity is > 50unit/mg, and is defined as the amount of enzyme that convert 1.0 umole of glyceraldehyde-3-phosphate to 1,3-Bisphosphoglycerate per minute at pH 8.5 at 37C.

Tag
Non-Tagged

Application
SDS-PAGE, Enzyme Activity

Storage Condition
Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

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Description

Glyceraldehyde-3-phosphate dehydrogenase (GAPDH) is a catalytic enzyme commonly known to be involved in glycolysis. The enzyme exists as a tetramer composed of 36-kDa subunits and has various intracellular functions. GAPDH catalyzes the reversible reduction of 1, 3-bisphosphoglycerate to glyceraldehyde 3-phosphophate in the presence of NADPH. Besides functioning as a glycolytic enzyme in cytoplasm, evidence suggests that mammalian GAPDH is also involved in a great number of intracellular processes such as membrane fusion, microtubule bundling, phosphotransferase activity, nuclear RNA export, DNA replication and DNA repair. Recombinant GAPDH protein was expressed in E. coli and purified by using conventional chromatography techniques.

Amino acid Sequence

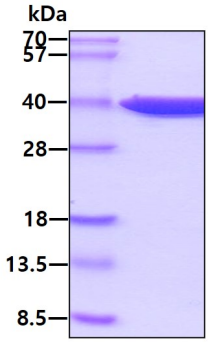
MGKVKVGVNG FGRIGRLVTR AAFNSGKVDI VAINDPFIDL NYMVYMFQYD STHGKFHGTV KAENGKLVIN GNPITIFQER DPSKIKWGDA GAEYVVESTG VFTTMEKAGA HLQGGAKRVI ISAPSADAPM FVMGVNHEKY DNSLKIISNA SCTTNCLAPL AKVIHDNFGI VEGLMTTVHA ITATQKTVDG PSGKLWRDGR GALQNIIPAS TGAAKAVGKV IPELNGKLTG MAFRVPTANV SVVDLTCRLE KPAKYDDIKK VVKQASEGPL KGILGYTEHQ VVSSDFNSDT HSSTFDAGAG IALNDHFVKL ISWYDNEFGY SNRVVDLMAH MASKE

General References

Ralser M., et al. (2007).J Biol. 6(4):10
Tisdale Ej., et al. (2007).Traffic. 8(6):733-41

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.