

# Recombinant human GAPDH protein

Catalog Number: IBATGP3433



## PRODUCT INFORMATION

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### 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

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### 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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**For research use only. This product is not intended or approved for human, diagnostics or veterinary use.**

*Manufactured for:*

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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 DNSLKIIISNA SCTTNCLAPL  
AKVIHDNFGI VEGLMTTVHA ITATQKTVDG PSGKLWRDGR GALQNIIPAS TGAAKAVGKV IPELNGKLTG MAFRVPTANV  
SVVDLTCRLE KPAKYDDIKK VVKQASEGPL KGILGYTEHQ VVSSDFNSDT HSSTFDAGAG IALNDHFVKL ISWYDNEFGY  
SNRVVDLMAH MASKE

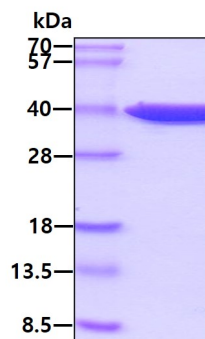
## General References

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.

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