

Recombinant Human Glyceraldehyde-3-phosphate dehydrogenase

Cat. No. GAPDH-115H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant GAPDH protein was expressed in E.coli and purified by using conventional chromatography techniques, 36kDa (335aa).
Species	Human
Source	E.coli
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.
Sequences of amino acids	MGKVKVGVNG FGRIGRLVTR AAFNSGKVDI VAINDPFIDL NYMVYMFQYD STHGKFHGTV KAENGKLVIN GNPITIFQER DPSKIKWGDA GA EYVVESTG VFTTMEKAGA HLQGGAKRVI ISAPSADAPM FVMGVNHEKY DNSLKIISNA SCTTNCLAPL AKVIHDNFGI VEGLMTTVHA ITATQKTVDG PSGKLWRDGR GALQNIIPAS TGAAKAVGKV IPELNGKLTG MAFRVPTANV SVVDLTCRLE KPAKYDDIKK VVKQASEGPL KGILGYTEHQ VVSSDFNSDT HSSTFDAGAG

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IALNDHFKVL ISWYDNEFGY SNRVVDLMAH MASKE

Formulation

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

Purity

> 95% by SDS - PAGE

Concentration

1 mg/ml (determined by Bradford assay)

Storage

Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

GENE INFORMATION

Gene Name

GAPDH glyceraldehyde-3-phosphate dehydrogenase [Homo sapiens]

Synonyms

glyceraldehyde-3-phosphate dehydrogenase; G3PD; GAPD; MGC88685; GAPDH; glyceraldehyde-3-phosphate dehydrogenase; OTTHUMP00000174431; EC 1.2.1.12; OTTHUMP00000174432; aging-associated gene 9 protein; glyceraldehyde 3-phosphate dehydrogenase

Gene ID

2597

mRNA Refseq

NM_002046

Protein Refseq

NP_002037

MIM

138400

UniProt ID

P04406

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Chromosome Location	12p13
Pathway	Alzheimer"s disease; Dentatorubropallidoluysian atrophy (DRPLA); Glycolysis / Gluconeogenesis; Huntington"s disease; Neurodegenerative Disorders; Metabolism of carbohydrates
Function	NAD or NADH binding; glyceraldehyde-3-phosphate dehydrogenase (phosphorylating) activity; oxidoreductase activity; protein binding
PDBrendering based on 3GPD. Available structures:1j0x,1u8f,1zn	