

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 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

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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
Chromosome Location	12p13

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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

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