Active Recombinant Human GAPDH protein (Bioactivity Validated)

Cat. No. GAPDH-20H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant GAPDH protein was expressed in E.coli and purified by using conventional chromatography techniques.
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.
Form	Liquid. In 20 mM Tris-HCl buffer (pH 8.0) containing 1 mM DTT, 1 mM EDTA, 20% glycerol
Bio-activity	Specific activity is > 90 units/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 37centigrade.
Molecular Mass	36kDa (335aa), confirmed by MALDI-TOF

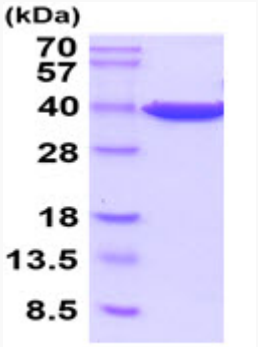
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AA Sequence	MGKVKVGVNG FGRIGRLVTR AAFNSGKVDI VAINDPFIDL NYMVYMFQYD STHGKFHGTV KAENGKLVIN GNPITIFQER DPSKIKWGDA GAEYVVESTG VFTTMEKAGA HLQGGAKRVI ISAPSADAPM FVMGVNHEKY DNSLKIISNA SCTTNCLAPL AKVIHDNFGI VEGLMTTVHA ITATQKTVDG PSGKLWRDGR GALQNIIPAS TGAAKAVGKV IPELNGKLTG MAFRVPTANV SVVDLTCRLE KPAKYDDIKK VVKQASEGPL KGILGYTEHQ VVSSDFNSDT HSSTFDAGAG IALNDHFVKL ISWYDNEFGY SNRVVDLMAH MASKE
Purity	> 95% by SDS - PAGE
Storage	Can be stored at +4centigrade short term (1-2 weeks). For long term storage, aliquot and store at -20centigrade or -70centigrade. Avoid repeated freezing and thawing cycles.
Concentration	1 mg/ml (determined by Bradford assay)

GENE INFORMATION

Gene Name	GAPDH glyceraldehyde-3-phosphate dehydrogenase [Homo sapiens]
Official Symbol	GAPDH
Synonyms	GAPDH; glyceraldehyde-3-phosphate dehydrogenase; GAPD; G3PD; MGC88685;
Gene ID	2597
mRNA Refseq	NM_001256799
Protein Refseq	NP_001243728
MIM	138400

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UniProt ID	P04406
Chromosome Location	12p13.31
Pathway	Alzheimers disease, organism-specific biosystem; Alzheimers disease, conserved biosystem; Androgen Receptor Signaling Pathway, organism-specific biosystem; Gluconeogenesis, organism-specific biosystem; Gluconeogenesis, oxaloacetate => fructose-6P, organism-specific biosystem; Gluconeogenesis, oxaloacetate =>
Function	NAD binding; NADP binding; glyceraldehyde-3-phosphate dehydrogenase (NAD+) (phosphorylating) activity; glyceraldehyde-3-phosphate dehydrogenase (NAD+) (phosphorylating) activity; oxidoreductase activity; peptidyl-cysteine S-nitrosylase activity; protein binding; transferase activity;
	 15% SDS-PAGE (3ug)

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