

Recombinant Human GAPDH Protein, His-tagged

Cat. No. GAPDH-2191H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human GAPDH Protein (Gly2-Val324) with a N-His tag was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	Gly2-Val324
Description	This gene encodes a member of the glyceraldehyde-3-phosphate dehydrogenase protein family. The encoded protein has been identified as a moonlighting protein based on its ability to perform mechanistically distinct functions. The product of this gene catalyzes an important energy-yielding step in carbohydrate metabolism, the reversible oxidative phosphorylation of glyceraldehyde-3-phosphate in the presence of inorganic phosphate and nicotinamide adenine dinucleotide (NAD). The encoded protein has additionally been identified to have uracil DNA glycosylase activity in the nucleus. Also, this protein contains a peptide that has antimicrobial activity against E. coli, P. aeruginosa, and C. albicans. Studies of a similar protein in mouse have assigned a variety of additional functions including nitrosylation of nuclear proteins, the regulation of mRNA stability, and acting as a transferrin receptor on the cell surface of macrophage. Many pseudogenes similar to this locus are present in the human genome. Alternative splicing results in multiple transcript variants.
Form	Freeze-dried powder

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Molecular Mass	Predicted Molecular Mass: 38.4 kDa Accurate Molecular Mass: 40 kDa
Endotoxin	<1.0 EU per 1g (determined by the LAL method).
Purity	> 90%
Applications	Positive Control; Immunogen; SDS-PAGE; WB.
Stability	The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 centigrade for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8 centigrade for one month. Aliquot and store at -80 centigrade for 12 months.
Storage Buffer	PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Reconstitution	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

GENE INFORMATION

Gene Name	GAPDH glyceraldehyde-3-phosphate dehydrogenase [Homo sapiens (human)]
Official Symbol	GAPDH
Synonyms	GAPDH; glyceraldehyde-3-phosphate dehydrogenase; GAPD; aging-associated gene 9 protein; peptidyl-cysteine S-nitrosylase GAPDH; G3PD; MGC88685;

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Gene ID	2597
mRNA Refseq	NM_001256799
Protein Refseq	NP_001243728
MIM	138400
UniProt ID	P04406

