

Recombinant Human GAPDH Protein, Myc/DDK-tagged, C13 and N15-labeled

Cat. No. GAPDH-4150H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	GAPDH MS Standard C13 and N15-labeled recombinant protein (NP_002037) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.
Species	Human
Source	HEK293
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 <i>E. coli</i>, <i>P. aeruginosa</i>, and <i>C. albicans</i>. 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.
Molecular Mass	36.1 kDa

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AA Sequence	MGKVKVGVNGFGRIGRLVTRAAFNSGKVDIVAINDPFIDLNYMVYMFQYDSTHGKFH GTVKAENGKLVINGNPITIFQERDPSKIKWGDAGAEYVVESTGVFTTMEKAGAHLQG GAKRVIISAPSADAPMFVMGVNHEKYDNSLKIISNASCTTNCLAPLAKVIHDNFGIVEG LMTTVHAITATQKTVDGPGSKLWRDGRGALQNIIPASTGAAKAVGKVIPELNGKLTG MAFRVPTANVSVVDLTCRLEKPAKYDDIKKVVKQASEGPLKGILGYTEHQVVSSDFN SDTHSSTFDAGAGIALNDHFVKLISWYDNEFGYSNRVVDLMAHMASKETRTRPLEQ KLISEEDLAANDILDYKDDDDKV
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 3 months from receipt of products under proper storage and handling conditions.
Storage	Store at -80 centigrade. Avoid repeated freeze-thaw cycles.
Concentration	50 µg/mL as determined by BCA
Storage Buffer	100 mM glycine, 25 mM Tris-HCl, pH 7.3.
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;
Gene ID	2597
mRNA Refseq	NM_002046

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Protein Refseq NP_002037

MIM 138400

UniProt ID P04406

SDS-PAGE



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