

Product datasheet for PH302309

GAPDH (NM_002046) Human Mass Spec Standard

Product data:

Product Type:	Mass Spec Standards
Description:	GAPDH MS Standard C13 and N15-labeled recombinant protein (NP_002037)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC202309
Predicted MW:	36.1 kDa
Protein Sequence:	>RC202309 protein sequence Red=Cloning site Green=Tags(s)

MGKVKVGVNGFGRIGRLVTRAAFNSGKVDIVAINDPFIDLNYMVYMFQYDSTHGKFGHTVKAENGLVIN
GNPITIFQERDPSKIKWGDAGAEYVVESTGVFTTMEKAG AHLQGGAKRVIISAPSADAPMFVMGVNHEKY
DNSLKIIISNASCTTNCLAPLAKVIHDNFGIVEGLMTTVHAIATATQKTVDGP SGKLWRDGRGALQNIIPAS
TGAAKAVGKVIPELNGKLTGMAFRVPTANVSVDLTCRLEKPAKYDDIKKVVVKQASEGPLKGI LGYTEHQ
VVSSDFNSDTHSSTFDAGAGIALNDHFVKLISWYDNEFGYSNRVVDLMAHMASKE

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Tag:	C-Myc/DDK
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Labeling Method:	Labeled with [U- ¹³ C ₆ , ¹⁵ N ₄]-L-Arginine and [U- ¹³ C ₆ , ¹⁵ N ₂]-L-Lysine
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3
Storage:	Store at -80°C. Avoid repeated freeze-thaw cycles.
Stability:	Stable for 3 months from receipt of products under proper storage and handling conditions.
RefSeq:	<u>NP_002037</u>
RefSeq Size:	1421
RefSeq ORF:	1005
Synonyms:	G3PD; GAPD; HEL-S-162eP
Locus ID:	2597



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UniProt ID: [P04406](#), [V9HVZ4](#)

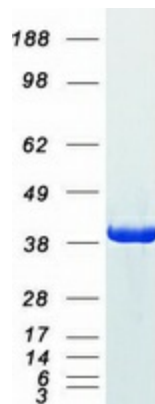
Cytogenetics: 12p13.31

Summary: 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. [provided by RefSeq, Nov 2014]

Protein Families: ES Cell Differentiation/IPS

Protein Pathways: Alzheimer's disease, Glycolysis / Gluconeogenesis, Metabolic pathways

Product images:



Coomassie blue staining of purified GAPDH protein (Cat# [TP302309]). The protein was produced from HEK293T cells transfected with GAPDH cDNA clone (Cat# [RC202309]) using MegaTran 2.0 (Cat# [TT210002]).