Recombinant Human HOGA1 Protein, Myc/DDK-tagged, C13 and N15-labeled

Cat. No. HOGA1-5691H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	DHDPSL MS Standard C13 and N15-labeled recombinant protein (NP_612422) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.
Species	Human
Source	HEK293
Description	The authors of PMID:20797690 cloned this gene while searching for genes in a region of chromosome 10 linked to primary hyperoxalurea type III. They noted that even though the encoded protein has been described as a mitochondrial dihydrodipicolinate synthase-like enzyme, it shares little homology with E. coli dihydrodipicolinate synthase (Dhdps), particularly in the putative substrate-binding region. Moreover, neither lysine biosynthesis nor sialic acid metabolism, for which Dhdps is responsible, occurs in vertebrate mitochondria. They propose that this gene encodes mitochondrial 4-hydroxyl-2-oxoglutarate aldolase (EC 4.1.3.16), which catalyzes the final step in the metabolic pathway of hydroxyproline, releasing glyoxylate and pyruvate. This gene is predominantly expressed in the liver and kidney, and mutations in this gene are found in patients with primary hyperoxalurea type III. Alternatively spliced transcript variants encoding different isoforms have been noted for this gene.
Molecular Mass	35.2 kDa

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AA Sequence	MLGPQVWSSVRQGLSRSLSRNVGVWASGEGKKVDIAGIYPPVTTPFTATAEVDYGK LEENLHKLGTFPFRGFVVQGSNGEFPFLTSSERLEVVSRVRQAMPKNRLLLAGSGC ESTQATVEMTVSMAQVGADAAMVVTPCYYRGRMSSAALIHHYTKVADLSPIPVVLY SVPANTGLDLPVDAVVTLSQHPNIVGMKDSGGDVTRIGLIVHKTRKQDFQVLAGSAG FLMASYALGAVGGVCALANVLGAQVCQLERLCCTGQWEDAQKLQHRLIEPNAAVT RRFGIPGLKKIMDWFGYYGGPCRAPLQELSPAEEEALRMDFTSNGWLTRTRPLEQK LISEEDLAANDILDYKDDDDKV
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	HOGA1 4-hydroxy-2-oxoglutarate aldolase 1 [Homo sapiens (human)]
Official Symbol	HOGA1
Synonyms	HOGA1; 4-hydroxy-2-oxoglutarate aldolase 1; HP3; NPL2; DHDPS2; DHDPSL; C10orf65; 4-hydroxy-2-oxoglutarate aldolase, mitochondrial; DHDPS-like protein; N-acetylneuraminate pyruvate lyase 2 (putative); dihydrodipicolinate synthase-like, mitochondrial; dihydrodipicolinate synthetase homolog 2; probable 2-keto-4-hydroxyglutarate aldolase; probable 4-hydroxy-2-oxoglutarate aldolase, mitochondrial; probable KHG-aldolase; protein 569272; EC 4.1.3.16

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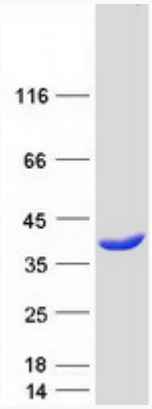
Gene ID	112817
mRNA Refseq	NM_138413
Protein Refseq	NP_612422
MIM	613597
UniProt ID	Q86XE5
SDS-PAGE	

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