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Product datasheet for RC225159L4V

HOGA1 (NM_001134670) Human Tagged ORF Clone Lentiviral Particle

Product data:

Product Type:	Lentiviral Particles
Symbol:	HOGA1
Synonyms:	C10orf65; DHDPS2; DHDPSL; HP3; NPL2
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-mGFP-P2A-Puro (PS100093)
Tag:	mGFP
ACCN:	NM_001134670
ORF Size:	492 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(RC225159).
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
RefSeq:	NM_001134670.1, NP_001128142.1
RefSeq ORF:	495 bp
Locus ID:	112817
UniProt ID:	Q86XE5
Cytogenetics:	10q24.2
MW:	17.8 kDa

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Gene Summary:

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. [provided by RefSeq, Nov 2010]