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Product datasheet for SC324756

HOGA1 (NM_001134670) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HOGA1 (NM_001134670) Human Untagged Clone
Tag:	Tag Free
Symbol:	HOGA1
Synonyms:	C10orf65; DHDPS2; DHDPSL; HP3; NPL2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC324756 representing NM_001134670. Blue=Insert sequence Red=Cloning site Green=Tag(s) GCTCGTTTAGTGAACCGTCAGAATTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC ATGCTGGGTCCCCAAGTCTGGTCTTCTGTGAGGCAGGGGCTAAGCAGGAGCTTGTCCAGGAATGTGGGG GTCTGGGCCTCAGGGGAGGGGAAGAAGGTGGACATTGCGGGTATCTACCCCCCTGTGACCACCCCCTTC ACTGCCACTGCAGAGGTGGACTATGGGAAACTGGAGGAGAATCTGCACAAACTGGGCACCTTCCCCTTC CGAGGAGCTGTGGGGGGCGTCTGCGCCCTGGCCAATGTCCTGGGGGCTCAGGTGTGCCAGCTGGAGCGA CTGTGCTGCACGGGGCAATGGGAAGATGCCCAGAAACTGCAGCACCGCCTCATTGAGCCAAACGCTGCG GTGACCCGGCGCTTTGGGATCCCAGGGCTGAAGAAAATCATGGACTGGTTTGGCTACTATGGAGGCCCC TGCCGCGCCCCCTTGCAGGAGCTGAGCCCCGCTGAGGAGGAGGCACTGCGCATGGATTTCACCAGCAAC GGCTGGCTCTGA ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
Restriction Sites:	SgfI-MluI
ACCN:	NM_001134670
Insert Size:	495 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	1. Centrifuge at 5,000xg for 5min. 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA. 3. Close the tube and incubate for 10 minutes at room temperature. 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom. 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	NM_001134670.1
RefSeq Size:	2012 bp
RefSeq ORF:	495 bp
Locus ID:	112817
UniProt ID:	Q86XE5
Cytogenetics:	10q24.2
MW:	18 kDa
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] Transcript Variant: This variant (2) lacks multiple consecutive exons in the coding region, compared to variant 1, resulting in a protein (isoform 2) that lacks a large region of the central protein when compared to isoform 1.