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Product datasheet for RG224339

Aspartate beta hydroxylase (ASPH) (NM_020164) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Aspartate beta hydroxylase (ASPH) (NM_020164) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ASPH
Synonyms:	AAH; BAH; CASQ2BP1; FDLAB; HAAH; JCTN; junctin
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG224339 representing NM_020164 Red=Cloning site Blue=ORF Green=Tags(s) TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGGCTGAAGATAAAGAGACAAAGCATGGAGGACACAAGAATGGGAGGAAAGGCGGACTCTCAGGAACTT CATTCTTCACGTGGTTTATGGTGATTGCATTGCTGGGCGTCTGGACATCTGTAGCTGTCGTTTGGTTTGA TCTTGTTGACTATGAGGAAGTTCTAGCCAAAGCAAAGGACTTCCGTTATAACTTATCAGAGGTGCTTCAA GGAAAACTAGGAATCTATGATGCTGATGGTGATGGAGATTTTGATGTGGATGATGCCAAAGTTTTATTAG AAGGACCCAGTGGGGTAGCCAAGAGAAAAACTAAGGCTAAAGTTAAAGAACTCACTAAAGAAGAGCTCAA GAAGGAGAAAGAGAAACCTGAGTCAAGGAAGGAAAGTAAGAATGAAGAGAGAAAAAAGGGGAAGAAAGAG GATGTCCGAAAGGATAAGAAAATTGCTGATGCAGACCTATCCAGGAAGGAGTCTCCTAAGGGTAAAAAGG ACAGAGAAAAAGAGAAAGTGGACCTAGAAAAAAGTGCTAAAACCAAGGAAAATAGGAAAAAATCAACAAA TATGAAGGATGTTTCTAGTAAAATGGCATCCCGAGACAAAGATGACAGAAAGGAAAGTAGAAGTTCTACC AGATATGCACACTTAACAAAGGGAAATACCCAGAAAAGAAACGGC ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

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Protein Sequence:

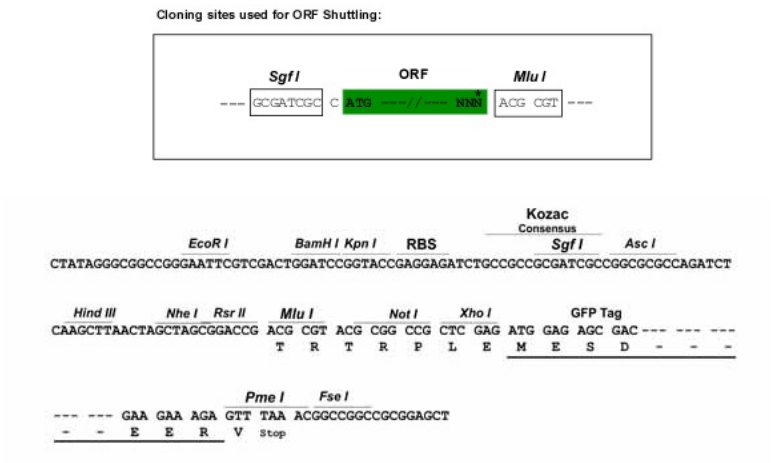
>RG224339 representing NM_020164
Red=Cloning site Green=Tags(s)

MAEDKETKHGGHKNGRKGGLSGTSFFTWFMVIALLGVWTSVAVVWFDLVDYEEVLAKAKDFRYNLSEVLQ
GKLGIYDADGDGDFDVDDAKVLLEGPSGVAKRKTKAKVKELTKEELKKEKEKPESRKESKNEERKKGKKE
DVRKDKKIADADLSRKESPKGKKDREKEKVDLEKSAKTKENRKKSTNMKDVSSKMASRDKDDRKESRSST
RYAHLTKGNTQKRNG

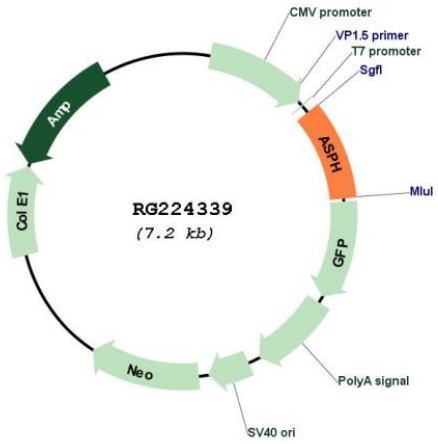
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_020164

ORF Size: 675 bp

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.
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_020164.5
RefSeq Size:	3287 bp
RefSeq ORF:	678 bp
Locus ID:	444
UniProt ID:	Q12797
Cytogenetics:	8q12.3
Protein Families:	Druggable Genome, Transmembrane
Gene Summary:	This gene is thought to play an important role in calcium homeostasis. The gene is expressed from two promoters and undergoes extensive alternative splicing. The encoded set of proteins share varying amounts of overlap near their N-termini but have substantial variations in their C-terminal domains resulting in distinct functional properties. The longest isoforms (a and f) include a C-terminal Aspartyl/Asparaginyl beta-hydroxylase domain that hydroxylates aspartic acid or asparagine residues in the epidermal growth factor (EGF)-like domains of some proteins, including protein C, coagulation factors VII, IX, and X, and the complement factors C1R and C1S. Other isoforms differ primarily in the C-terminal sequence and lack the hydroxylase domain, and some have been localized to the endoplasmic and sarcoplasmic reticulum. Some of these isoforms are found in complexes with calsequestrin, triadin, and the ryanodine receptor, and have been shown to regulate calcium release from the sarcoplasmic reticulum. Some isoforms have been implicated in metastasis. [provided by RefSeq, Sep 2009]