

Product datasheet for **SC108955**

Aspartate beta hydroxylase (ASPH) (NM_032466) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Aspartate beta hydroxylase (ASPH) (NM_032466) Human Untagged Clone
Tag:	Tag Free
Symbol:	Aspartate beta hydroxylase
Synonyms:	AAH; BAH; CASQ2BP1; FDLAB; HAAH; JCTN; junctin
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC108955 sequence for NM_032466 edited (data generated by NextGen Sequencing)

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ATGGCCCAGCGTAAGAATGCCAAGAGCAGCGGCAACAGCAGCAGCAGCGGCTCCGGCAGC
GGTAGCACGAGTCCGGGCAGCAGCAGCCCCGGGGCCGGAGAGACAAAGCATGGAGGA
CACAAGAATGGGAGGAAAAGCGGACTCTCAGGAACTTCATTCTTCACGTGGTTTATGGTG
ATTGCATTGCTGGGCGTCTGGACATCTGTAGCTGTCGTTTGGTTTGTCTTGTGACTAT
GAGGAAGTTCTAGGAAAAGTCTAGGAATCTATGATGCTGATGGTGATGGAGATTTTGTGATG
GATGATGCCAAAGTTTTATTAGGACTTAAAGAGAGATCTACTTCAGAGCCAGCAGTCCCG
CCAGAAGAGGCTGAGCCACACACTGAGCCCGAGGAGCAGGTTCTGTGGAGGCAGAACC
CAGAATATCGAAGATGAAGCAAAAAGAACAATTCAGTCCCTTCTCCATGAAATGGTACAC
GCAGAACATGTTGAGGGAGAAGACTTGCAACAAGAAGATGGACCCACAGGAGAACCACAA
CAAGAGGATGATGAGTTTCTTATGGCGACTGATGTAGATGATAGATTTGAGACCCGTGAA
CCTGAAGTATCTCATGAAGAAAACCGAGCATAGTTACCACGTGGAAGAGACAGTTTCACAA
GACTGTAATCAGGATATGGAAGAGATGATGTCTGAGCAGGAAAATCCAGATTCAGTGAA
CCAGTAGTAGAAGATGAAAGATTGCACCATGATACAGATGATGTAACATACCAAGTCTAT
GAGGAACAAGCAGTATATGAACCTCTAGAAAATGAAGGGATAGAAATCACAGAAGTAACT
GCTCCCCCTGAGGATAATCCTGTAGAAGATTCACAGGTAATTGTAGAAGAAGTAAGCATT
TTTCTGTGGAAGAACAGCAGGAAGTACCACCAGATACTTAA
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Clone variation with respect to NM_032466.3



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5' Read Nucleotide Sequence:	<p>>OriGene 5' read for NM_032466 unedited</p> <pre> ATTTTGTATACGACTCACTATAGCGCGCCGCAATTTCGGCACGAGGGTGCTGCAGGCGGT GCTGAGGCACAGGGTCTGCTGCAGGAGCAGCGCCCGAACCCCGCTCCAGCGGCCCGCCG CGCCAGCGGCTCCCGCTCGCGTGTGTACCCCGCGCACTGAAGGAGGTCCACCAGCCCT CACCAGCCCCCGGACCGTGAATGGCCAGCGTAAGAATGCCAAGAGCAGCGGCAACA GCAGCAGCAGCGGCTCCGGCAGCGGTAGCACGAGTGCGGGCAGCAGCAGCCCCGGGGCC GGAGAGAGACAAAGCATGGAGGACACAAGAATGGGAGGAAAGGCGGACTCTCAGGAATT CATTCTTCACGTGGTTTATGGTGATTGCATTGCTGGGCGTCTGGACATCTGTAGCTGTG TTTGGTTTGATCTTGTGACTATGAGGAAGTTCTAGGAAAAGTCTAGGAATCTATGATGCTG ATGGTGATGGAGATTTTGTGATGTGGATGATGCCAAAGTTTTATTAGGACTTAAAGAGAGAT CTACTTCAGAGCCAGCAGTCCC GCCAGAAGAGGCTGAGCCACACACTGAGCCCGAGGAGC AGGTTCTGTGGAGGCAGAACCCAGAATATCGAAGATGAAGCAAAGAACAATTCAGT CCCCTTCCATGAAATGGTACACGCCAGACATGTTGAGGGGAGAAGACTTGCAACAAGA AGATGGGCCCCCAGNAGACCCCAACCAGAGGATGATGAGGTCTCTATTGCGACTGATG GAGATGATAAATTTGAGACCCCTTGACCTGGAGTTTCTTATGAAAAAACCGAGCCTAGT TCCACGTGGGAAGAGACAGGTTCCCAAAACTGGGATCACGAATTGG </pre>
3' Read Nucleotide Sequence:	<p>>OriGene 3' read for NM_032466 unedited</p> <pre> NCCCGTAATCCTTGNCCGCGGCCGCAATTTNANGATCGCGNTTTTTTTTTTTTTTTTTTTT TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTAAACCTTCGGGATTTAATGGCCCCAACATTT AATAAAAAACATTTACATTTATTTTTAAAAATCCACCGATGTTGCACAATGGCACATATT TGTAAGCACAAGGCTCATTAAATCAAATATTTGGAATTCAAAAATTTAAAGTTAACC ACAGCATAATGAATCCTCAACGTCAGAGTTCTACAAAAATCCAGCAAACTTACTTTTA CCCATTATCAGTTCTATGGCACTCCCTTAGTTTCCCTAAAAAAGGGTTTAAAAA AAGGAGCTTTTTATATCCCAAAGGGAGAGTTTTTATTAATAATTTGGGAAAAATTTT TTGATCACCCGACCGGCCAGTTTTAAAAAAGGGGCTTCTTAAAAACCAAAATTT TTCAGGGTTAATTTACCACTGGGGGACCCCGCGGGGTTCCCATCACTTGGGTTAA AAACCTCTGGGCCTTTGGGGGAAAAAATAAAAAAGATTTTTTTTTGTTTTTTACC CCTCCAAAAACCGGGGGGAGAAAAAGCGCCCCCTTCTTTTATTGGGTGTACAACAAA AAAAAAAAGACTCCCCCTCTCTATTAATTTGCTCACCACACAACCCCTCTTTTTTT AGGAGGTGTTCTGTTCTATAAAAAAGAGGGCCAACAAGAGGGCGCCTCCCTTCAAAA AAGAGGAGGGGGGGCGCCCACTCTTCTTTTGTTCGAAACAGAGAGTGTTA TTTTTCTCTCCANACGAAACAATATATTTTTTTGTGGTGGCGCCCCACATATATA CCTCCCTCTTTCTATAATAAAGAACAACAATATCTTTTTCGTTGTTGTAACACAA AAAAANAGAGCGTCTCTCTGCGCGTGCGGAGATAATATAACAACACACACAAAG ACGCCGTCTCGTGGTGGCTCTNCTTTCTANACACACCCCTCCACACACACACCACC NGCTCTGTCGAGGGGGGGTGGTGTGGTGGTTCTTCTATAATAGAGAGACACGATCG </pre>
Restriction Sites:	NotI-NotI
ACCN:	NM_032466
Insert Size:	2930 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).
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_032466.1](#), [NP_115855.1](#)

RefSeq Size: 2680 bp

RefSeq ORF: 942 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]

Transcript Variant: This variant (3) uses a distinct 3' splice pattern that lacks many coding exons, compared to variant 1. The encoded isoform (c), also known as humbug, is identical to the N-terminal and central region of isoform a. Because this transcript variant lacks the alternative 3' terminal exon which encodes a catalytic domain for isoform a, isoform c is considered a noncatalytic isoform. This variant is widely expressed among heart, placenta, skeletal muscle, kidney, and lung tissues. **Sequence Note:** This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.