

## Product datasheet for **RG228210**

### Aspartate beta hydroxylase (ASPH) (NM\_001164752) Human Tagged ORF Clone

#### Product data:

|                           |  |
|---------------------------|--|
| Product Type:             | Expression Plasmids  |
| Product Name:             | Aspartate beta hydroxylase (ASPH) (NM_001164752) 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:  | >RG228210 representing NM_001164752<br>Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCTGAAGATAAAGAGACAAAGCATGGAGGACACAAGAATGGGAGGAAAGGCGGACTCTCAGGAAGCTT  
CATTCTTCACGTGGTTTATGGTGATTGCATTGCTGGGCGTCTGGACATCTGTAGCTGTCGTTTGGTTTGA  
TCTTGTGACTATGAGGAAGTTCTAGCCAAAGCAAAGGACTTCCGTTATAACTTATCAGAGGTGCTTCAA  
GGAAAAGTAGGAATCTATGATGCTGATGGTGATGGAGATTTTGATGTGGATGATGCCAAAGTTTATTAG  
GACTTAAAGAGAGATCTACTTCAGAGCCAGCAGTCCCAGGAGAGGCTGAGCCACACACTGAGCCCGA  
GGAGCAGGTTCCGTGGAGGCAGAACCCAGAATATCGAAGATGAAGCAAAGAACAATTCAGTCCCTT  
CTCCATGAAATGGTACACGCAGAACATGTTGAGGGAGAAGACTTGCAACAAGAAGATGGACCCACAGGAG  
AACCACAACAAGAGGATGATGAGTTTCTTATGGCGACTGATGTAGATGATAGATTTGAGACCCTGGAACC  
TGAAGTATCTCATGAAGAAACCGAGCATAGTTACCACGTGGAAGAGACAGATTCCAGTGAACCAAGTATG  
GAAGATGAAAGATTGCACCATGATACAGATGATGTAACATACCAAGTCTATGAGGAACAAGTATATGAAC  
CTCTAGAAAATGAAGGGATAGAAATCACAGAAGTAACTGCTCCCCTGAGGATAATCCTGTAGAAGATTC  
ACAGGTAATTGTAGAAGAAGTAAGCATTTCCTGTGGAAGAACAGCAGGAAGTACCACCAAGATACT

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG228210 representing NM\_001164752  
 Red=Cloning site Green=Tags(s)

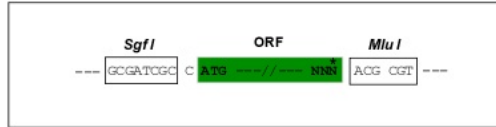
MAEDKETKHGGHKNGRKGGLSGTSFFTFWFMVIALLGWVTSVAVVWFDLVDYEEVLAKAKDFRYNLSEVLQ  
 GKLG IYDADGDGDFDVEDDAKVLGLKERSTSEPAVPPEEAEPHTEPEEQVPVEAEPQNIIDEAKEIQSL  
 LHEMVHAEHVEGEDLQQEDGPTGEPQQEDEFMLMATDVDDRFETLEPEVSHEETEHSYHVEETDSSEPVV  
 EDERLHHDTDDVTYQVYEEQVYEPLENEGIEITEVTAPPEDNPVEDSQVIVEEVSIFPVVEEQEVPPDT

TRTRPLE - GFP Tag - V

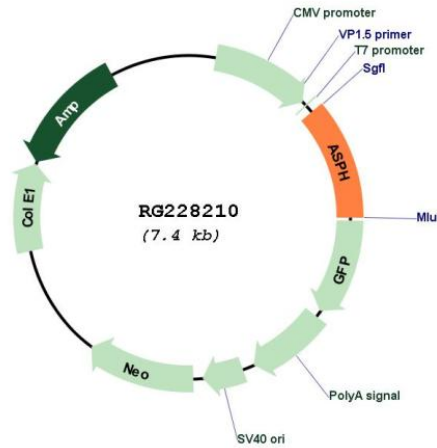
**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



**Plasmid Map:**



**ACCN:** NM\_001164752

**ORF Size:** 837 bp

|                               |  |
|-------------------------------|--|
| <b>OTI Disclaimer:</b>        | 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. <a href="#">More info</a>   |
| <b>OTI Annotation:</b>        | This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.   |
| <b>Components:</b>            | 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).   |
| <b>Reconstitution Method:</b> | <ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>  |
| <b>RefSeq:</b>                | <a href="#">NM_001164752.2</a>   |
| <b>RefSeq Size:</b>           | 3582 bp  |
| <b>RefSeq ORF:</b>            | 840 bp   |
| <b>Locus ID:</b>              | 444  |
| <b>Cytogenetics:</b>          | 8q12.3   |
| <b>Protein Families:</b>      | Druggable Genome, Transmembrane  |
| <b>Gene Summary:</b>          | 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] |