

## Product datasheet for **SC305276**

### DDHD1 (NM\_030637) Human Untagged Clone

#### Product data:

|                           |                                        |
|---------------------------|----------------------------------------|
| Product Type:             | Expression Plasmids                    |
| Product Name:             | DDHD1 (NM_030637) Human Untagged Clone |
| Tag:                      | Tag Free                               |
| Symbol:                   | DDHD1                                  |
| Synonyms:                 | iPLA1alpha; PA-PLA1; PAPLA1; SPG28     |
| Mammalian Cell Selection: | None                                   |
| Vector:                   | <u>pCMV6-XL4</u>                       |
| E. coli Selection:        | Ampicillin (100 ug/mL)                 |
| Fully Sequenced ORF:      | >OriGene sequence for NM_030637 edited |

```
GTTGAATGTGTGGCGGAAGCGCTGGGGGTCACGGCTCCGCGCCGCCGACAGCCGGCG
GCGTCTCCACAGCATGAATTACCCGGGCCGCGGTCCCCACGGAGCCCCGAGCATAACGG
CCGAGGGCGGCGGCGCGCGCCTGGGAGCTGGGCTCAGACGCGAGGCCAGCGTTCGCGCG
CGGCGTCTGCTGCTTCGAGCACCTGCCCGCGGGGACCCGGACGACGCGGACGTGCCCT
GGCCCTGCTGCGCGGGAACCCGGGCTGCATTTGGCGCCGGGCACGACGACCACAACCA
CCACCTCGCGCTGGACCCCTGCCTCAGTGACGAGAACTATGACTTTAGCTCCGCCGAGTC
GGGCTCCTCGCTGCGCTACTACAGCGAGGGTGAGAGCGGCGGCGGCGGCGGCGGCGAGTC
CTTGCTCGCTGCATCCGCCGAGCAGCCTCCGCTGGTCCCGACGAACTCGGGGGCGGCGG
CGCGACAGGAGGGTCCCCGGGAAAGGAAACGTACCCGGCTTGCGGCCCCGGCGGCCCG
GCACCGCTATGAGGTAGTGACGAGCTGGGCCCGGAGGAGTACGCTGGTTCTACAAGGA
GGACAAGAAGACCTGGAAGCCCTTCATCGCTACGACTCGCTCCGCATCGAGCTCGCCTT
CCGGACCCCTGCTGCAGACCACGGGTGCCCGGCCCCAGGGCGGGGACCGGGACGGCGACCA
TGTGTGCTCCCCACGGGCCAGCCTCCAGTTCGCGAGAAGATGACGATGAGGACCGCGC
CTGCGGCTTCTGCCAGAGTACGACGGGGCACGAGCCGGAGATGGTGGAGCTTGTGAACAT
CGAGCCTGTGTGCGTGCGGGCGGCCTCTACGAGGTGGATGTGACCCAAGGAGAGTGCTA
CCCGGTGTAAGTGAACAGGCTGATAAAATACAGTAATGCGTGGACAGTGGTTTATTGA
CGGCACCTTGGCAGCCTCTAGAAGAGGAAGAAAGTAATTTAATTGAGCAAGAACATCTCAA
TTGTTTTAGGGGCCAGCAGATGCAGGAAAATTTGATATTGAAGTGTCAAAATCCATAGA
TGGAAAAGATGCTGTTCATAGTTTCAAGTTGAGTCGAAACCATGTGGACTGGCAGAGTGT
GGATGAAGTATATCTTTATAGTGATGCAACAACATCTAAAATTGCAAGAACAGTTACCCA
AAAAGTGGATTTTCTAAAGCATCAAGTAGTGGTACCAGACTTCATAGAGTTATGTAGA
AGAAGCCACATTAGAAGACAAGCCATCACAGACTACCCATATTGTATTTGTTGTCATGG
CATTGGGCAGAAAATGACCAAGGAAGAATTATCAAAAATACAGCTATGATGAGAGAAGC
TGCAAGAAAAATAGAAGAAAGGCATTTTTCCAACCATGCAACACATGTTGAATTTCTGCC
TGTTGAGTGGCGGTCAAACTTACTCTTGATGGAGACACTGTTGATTCCATTACTCTGA
CAAAGTACGAGGTTTAAGGGATATGCTGAACAGCAGTGAATGGACATAATGTATTATAC
```



[View online »](#)

```

TAGTCCACTTTATAGAGATGAACTAGTTAAAGGCCTTCAGCAAGAGCTGAATCGATTGTA
TTCCCTTTTCTGTTCTCGGAATCCAGACTTTGAAGAAAAAGGGGTAAAGTCTCAATAGT
ATCACATTCTTGGGATGTGTAATTACTTATGACATAATGACTGGCTGGAATCCAGTTTCG
GCTGTATGAACAGTTGCTGCAAAAGGAAGAAGAGTTGCCTGATGAACGATGGATGAGCTA
TGAAGAACGACATCTTCTTGATGAACTCTATATAACAAAACGACGGCTGAAGGAAATAGA
AGAACGGCTTCACGGATTGAAAGCATCATCTATGACACAAACACCTGCCTTAAATTTAA
GGTTGAGAATTTCTTCTGTATGGGATCCCCATTAGCAGTTTTCTTGGCGTTGCGTGGCAT
CCGCCCAGGAAATCTGGAAGTCAAGACCATAATTTGCCTAGAGAGATTGTAAACCGGTT
ACTAAATATTTTTCATCCTACAGATCCAGTGGCTTATAGATTAGAACCATTAACTGAA
ACACTACAGCAACATTTACCTGTCCAGATCCACTGGTACAATACTTCAAATCCTTTACC
TTATGAACATATGAAGCCAAGCTTTCTCAACCCAGCTAAAGAACCTACCTCAGTTTCAGA
GAATGAAGGCATTTCAACCATACCAAGCCCTGTGACCTCACCAGTTTTGTCCCGCCGACA
CTATGGAGAATCTATAACAAATATAGGCAAAGCAAGCATATTAGGGGCTGCTAGCATTGG
AAAGGGACTTGGAGGAATGTTGTTCTCAAGATTTGGACGTTTCATCTACAACACAGTCATC
TGAAACATCAAAAGACTCAATGGAAGATGAGAAGAAGCCAGTTGCCTCACCTTCTGCTAC
CACCGTAGGGACACAGACCCTTCCACATAGCAGTTCTGGCTTCCCTCGATTCTGCATTGGA
GTTGGATCACAGGATTGATTTTGAACCTCAGAGAAGGCCTTGTGGAGAGCCGCTATTGGTC
AGCTGTCACGTCGCATACTGCCTATTGGTCATCCTTGGATGTTGCCCTTTTTCTTTAAC
CTTCATGTATAACATGAGCAGCATGATGATGCAAAACCAATTTAGATCCAATCTGAAC
TCTTGAAGGACATGAATGGCCTAAAACCTGATTTTTTTTTTTTCCGTTAAATGTGTGTGT
CAAGATACGGAGATTTACGGGTTAAAGTATATTTTCAAGTTTCTTTAGGGCAACATATATT
TGAATTTAAAAGCACTTTATTTAAAAAAGAAAGTTTTCAGTTCTGAAGAAGTCATTT
ACAGTTTGCATCATTTTAAATATGAGTCTGACAAAACCTTCTCCAGAGAATCAAGCAAGA
CCTGGATGTGAAGAAGGTTTGGGTAAACTGCATGTAAAGGCTACAAATCACAATCTGATT
CCTCCCAATATAAAGGCATATGGAACATAATGTATTAACCAAAGTATGTTATAAATCAA
AAATGGTCAAGGTTTACGATATTCTATATGAAGATCACAAGGTGGTATCGTTTTAGATTT
CTATGAAGGCTTTTCAATTTGTACATCCCTTTGAAAAATATAACAGATTTAAATGTTTTG
AATTTAACTTGTTTAGAAAACTAATGCTTAAACAATATTTGAACTACTGTATTTATAA
TTTATTACCTCTAATTGCTTTATTTTCAAGTGTATGAGACATTACTGTTTTAATGTTTGCTT
TGAACATAATTTAAGAACCAGATTTATTTTCTATAGTGATAAACCTTTTTTCTCAGAAC
TCCATCTTTGACTCTTCAGATGAATATATAGACACTGTGGCATACATTTTTTTTTCATTA
AAAACCTATGGCTTCATACAAAAA

```

**5' Read Nucleotide  
Sequence:**

```

>OriGene 5' read for NM_030637 unedited
CATTTGTATACGACTCCTATAGGCGGCCGCGNAATTTCGCACGAGGGTTGAATGTGTGGCG
GAAGCGCTGGGGGTCACGGCTCCGCGCGCCGCGGACAGCCGGCGGCGTCTCCACAGCAT
GAATTACCCGGGCCGCGGGTCCACGAGCCCGAGCATAACGGCCGAGGCGGCGGCGG
CGGCGCCTGGGAGCTGGGCTCAGACGCGAGGCCAGCGTTGGCGGCGGCGTCTGCTGCTT
CGAGCACCTGCCGCGGGGACCCGACGACGCGGACGTGCCCTTGGCCCTGCTGCGCGG
GGAACCCGGGCTGCATTTGGCGCCGGGACCGACGACCACAACCACCTCGCGCTGGA
CCCCTGCCTCAGTGACGAGAACTATGACTTTAGCTCCGCCGAGTCGGGCTCCTCGCTGCG
CTACTACAGCGAGGGTGAGAGCGGCGGCGGCGGCGGCGGCGAGCTCCTTGTGCTGCATCC
GCCGCAGCAGCTCCGCTGGTCCCGACGAACCTCGGGGGCGGCGGCGGCGCAGGAGGGTC
CCCCGGGGAAGGAAACGTACCCGGCTTGGCGGCCCGGCGGCGGCGGCGGCGGCGGCGG
AGTGACGGAGCTGGGCCCGGAGGAGTACGCTGTTTCTACAAGGAGGACAAGAAGACCTG
GAAGCCCTTCATCGGCTACGACTCGCTCCGCATCGAGCTCGCCTTCCGGACCCTGCTGCA
GACCAAGGGTGCCCGGCCAGGGCGGNGACCGGACGCGGACCATGTGTGCTCCCCAC
GGGCCAGCCTNCAGTCCGAGAAGAGACGATGAGGACCGCGCTNGGCGCTCTGCCAGA
GTACGAA

```

|                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>3' Read Nucleotide Sequence:</b> | <p>&gt;OriGene 3' read for NM_030637 unedited</p> <pre> CCCCGAGTCAATGAATATGAAAAAAGTATGCCAGGGAAAAATATTTTCTCTGAGAGTAC CAAGAGGGAGTTCTGAGAAAAAAGGGTTTATCACTATAGAAAATAAATCTGGTTCTTAA TTATGTTCAAAGCAAACATTAACAGTAATGTCTCACTCTGAAATAAGCAATTAGA GGTAATAAATTATAAATACAGTAGTTCAAATATTGTTTTAAGCATTAGTTTTCTAAACA AGTTAAATTCAAAACATTTTAAATCTGTTATATTTTTTCAAAGGGATGTACAAATGAAAG CCTTCATAGAAATCTAAACGATACACCTTGTGATCTTCATATAGAATATGCTGAACCT TGACCATTTTGGATTATAACATACTTTGGTTAATACATTATGTTCCATATGCCTTTATA TTTGGGAGGAATCAAATTGTGATTTGTAGCCTTTACATGCAGTTACCCAAACCTTCTTA ACATCCAGGTCTTGCTTGATACTCTGGAGAAGGTTTTGTCCAACCTCATAATTAATGAT GCCAAGTGAATGACTTCTTCATAACTGAAACCTCTTTTTTTTTTAAATAAATGCT TTTAAATTCACATATATGTTGCCCTCAACAAAAGTAAATATACTTTAAGACCTGAAATC TTCGTAATGAAACACATTTTAACCGGAAAAAATAAATCTAGGCCTTCTCT GTCCCTCAATAGACGAGAATGTATATAAATTGGGTTTTTCAATAAT </pre> |
| <b>Restriction Sites:</b>           | NotI-NotI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>ACCN:</b>                        | NM_030637                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>OTI Disclaimer:</b>              | 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).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>OTI Annotation:</b>              | The open reading frame of this TrueClone was fully sequenced and found to differ from the protein associated to this reference by two amino acids.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <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>                      | <u>NM_030637.1, NP_085140.1</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>RefSeq Size:</b>                 | 3563 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>RefSeq ORF:</b>                  | 2619 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Locus ID:</b>                    | 80821                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>UniProt ID:</b>                  | <u>Q8NEL9</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Cytogenetics:</b>                | 14q22.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

**Gene Summary:**

This gene is a member of the intracellular phospholipase A1 gene family. The protein encoded by this gene preferentially hydrolyzes phosphatidic acid. It is a cytosolic protein with some mitochondrial localization, and is thought to be involved in the regulation of mitochondrial dynamics. Overexpression of this gene causes fragmentation of the tubular structures in mitochondria, while depletion of the gene results in mitochondrial tubule elongation. Deletion of this gene in male mice caused fertility defects, resulting from disruption in the organization of the mitochondria during spermiogenesis. In humans, mutations in this gene have been associated with hereditary spastic paraplegia (HSP), also known as Strumpell-Lorrain disease, or, familial spastic paraparesis (FSP). This inherited disorder is characterized by progressive weakness and spasticity of the legs. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Aug 2015]

Transcript Variant: This variant (1) represents the shortest transcript and encodes the shortest isoform (a). 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.