

Product datasheet for **RC205548**

DDHD1 (NM_030637) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DDHD1 (NM_030637) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DDHD1
Synonyms:	iPLA1alpha; PA-PLA1; PAPLA1; SPG28
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC205548 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGAATTACCGGGCCGCGGGTCCCCACGGAGCCCGAGCATAACGGCCGAGCGCGCGCGCGCGCT
 GGGAGCTGGGCTCAGACGCGAGGCCAGCGTTTCGGCGCGCGGTCTGCTGCTTCGAGCACCTGCCCGCGG
 GGACCCGACGACGCGCGAGTGCCTTGGCCCTGCTGCGCGGGAAACCCGGGCTGCATTTGGCGCCGGG
 ACCGACGACCACAACCACCACCTCGCGCTGGACCCTGCCTCAGTGACGAGAACTATGACTTCAGCTCCG
 CCGAGTCGGGCTCCTCGCTGCGCTACTACAGCGAGGGTGAGAGCGCGCGCGCGGAGCTCCTTGTGCT
 GCACCCGCGCAGCAGCTCCGCTGGTCCCGACGAACTCGGGGGCGCGCGCGACAGGAGGTCCCC
 GGGGAAAGGAAACGTACCCGGCTTGGCGGCCCGCGGCCCGCACCGCTATGAGGTAGTGACGGAGCTGG
 GCCCGGAGGAGTACGCTGGTTCTACAAGGAGGACAAGAAGACCTGGAAGCCCTTCATCGGCTACGACTC
 GCTCCGCATCGAGCTCGCTTCCGGACCCTGCTGCAGACCACGGGTGCCCGGCCAGGGCGGGGACCGG
 GACGGCGACCATGTGTGCTCCCCACGGGCCAGCCTCCAGTTCGGGAGAAGATGACGATGAGGACCGCG
 CCTGCGGCTTCTGCCAGAGTACGACGGGACAGGACCGGAGATGGTGGAGCTTGTGAACATCGAGCCTGT
 GTGCGTGGCGGGCGGCTCTACGAGGTGGATGTGACCCAAGGAGAGTGCTACCCGGTGTACTGGAACGAG
 GCTGATAAAATACCAGTAATGCGTGGACAGTGGTTTATTGACGGCACTTGGCAGCCTCTAGAAGAGGAAG
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 TGAAGTGTCAAAATCCATAGATGAAAAGATGCTGTTTCATAGTTTCAAGTTGAGTCGAAACCATGTGGAC
 TGGCACAGTGTGGATGAAGTATATCTTTATAGTGATGCAACAACATCTAAAATTGCAAGAACAGTTACCC
 AAAACTGGGATTTTCTAAAGCATCAAGTAGTGGTACCAGACTTCATAGAGGTTATGTAGAAGAAGCCAC
 ATTAGAAGACAAGCCATCACAGACTACCCATATTGTATTTGTTGTGCATGGCATTGGGCAGAAAATGGAC
 CAAGGAAGAATTATCAAAAATACAGCTATGATGAGAGAAGCTGCAAGAAAATAGAAGAAGGCATTTTT
 CCAACCATGCAACACATGTTGAATTTCTGCCTGTTGAGTGGCGGTCAAACTTACTCTTGATGGAGACAC
 TGTTGATTCCATTACTCTGACAAAGTACGAGTTTAAAGGATATGCTGAACAGCAGTGCATGGACATA
 ATGATTATACTAGTCCACTTTATAGAGATGAACTAGTTAAAGGCCTTCAGCAAGAGCTGAATCGATTGT
 ATCCCTTTTCTGTTCTCGGAATCCAGACTTTGAAGAAAAGGGGTAAAGTCTCAATAGTATCACATTC
 CTTGGGATGTGTAATTACTTATGACATAATGACTGGCTGGAATCCAGTTCGGCTGTATGAACAGTTGCTG
 CAAAAGGAAGAAGAGTTGCCTGATGAACGATGGATGAGCTATGAAGAACGACATCTTCTTGATGAACTCT
 ATATAACTAAACGACGGCTGAAGGAAATAGAAGAACGGCTTCACGGATTGAAAGCATCATCTATGACACA
 AACACCTGCCTTAAAATTTAAGGTTGAGAATTTCTTCTGTATGGGATCCCCATTAGCAGTTTTCTTGGCG
 TTGCGTGGCATCCGCCAGGAAATACTGGAAGTCAAGACCATATTTTGCCTAGAGAGATTTGTAACCGGT
 TACTAAATATTTTTATCCTACAGATCCAGTGGCTTATAGATTAGAACCATTAATACTGAAACGCTACAG
 CAACATTTACCTGTCCAGATCCACTGGTACAATACTTCAAATCCTTTACCTTATGAACATATGAAGCCA
 AGCTTTCTCAACCCAGCTAAAGAACCTACCTCAGTTTCAGAGAATGAAGGCATTTCAACCATACCAAGCC
 CTGTGACCTCACCAGTTTTGTCCCGCCGACACTATGGAGAATCTATAACAAATATAGGCAAAGCAAGCAT
 ATTAGGGGCTGCTAGCATTGAAAAGGGACTTGGAGGAATGTTGTTCTCAAGATTTGGACGTTTCATCTACA
 ACACAGTCATCTGAAACATCAAAAGACTCAATGGAAGATGAGAAGAAGCCAGTTGCCTCACCTTCTGCTA
 CCACCGTAGGGACACAGACCCTCCACATAGCAGTTCTGGCTTCTCGATTCTGCATTGGAGTTGGATCA
 CAGGATTGATTTTGAACCTCAGAGAAGGCCTTGTGGAGAGCCGCTATTGGTCAGCTGTCACGTCGCATACT
 GCCTATTGGTCATCCTTGGATGTTGCCCTTTTTCTTTAACCTTCATGTATAACATGAGCACGATGATG
 ATGCAAAACCAATTTAGATCCAATC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC205548 protein sequence
 Red=Cloning site Green=Tags(s)

MNYPGRGSPRSPEHNRRGGGGAWELGSDARPAFGGGVCCFEHLPGGDPDDGDVPLALLRGEPLHLAPG
 TDDHNHHLALDPCLSDENYDFSSAESGSSLRYYSEGESGGGSSLSLHPPQPPLVPTNSGGGGATGGSP
 GERKRTRLGGPAARHRYEVVTELGPEEVRWFYKEDKKTWKPFIGYDSLRIELAFRTLLQTTGAR PQGDR
 DGDHVCSP TGPASSGEDDDDRACGFCQSTTGHEPEMVELVNIIEPVCVRGGLYEVDVTQGE CYPVYWNQ
 ADKIPVMRGQWFIDGTWQPLEEEESNLEIQQEHLNCFRGGQMQENFDIEVSKSIDGKDAVHFSKLSRNHVD
 WHSVDEVYLYSDATTSKIARTVTQKLGFASKSSGTRLRHGYVEEATLEDKPSQTTTHIVFVHGIQKMD
 QGRIKINTAMMREAARKIEERHFSNHATHVEFLPVEWRSKLTLGDVTVDISITPDKVRGLRDLNSSAMDI
 MYYTSPLYRDELVKGLQQELNRLYSLFCSRNPDFEKGKVSIVSHSLGCVITYDIMGWNPVRLYEQLL
 QKEEELPDERWMSYEERHLLDELYITKRLKEIEERLHGLKASSMTQTPALKFKVENFFCMGSPLAVFLA
 LRGIRPGNTGSQDHILPREICNRLNIFHPTDPVAYRLEPLILKRYSNISPVQIHWYNTSNPLPYEHMKP
 SFLNPAKEPTSVSENEGISTIPSPVTSPLSRRHYGESITNIGKASILGAASIGKGLGGMLFSRFGRSST
 TQSSKSDMEDEKPPVASPSATTVGTQTLPHSSSGFLDSELELDHRIDFELREGLVESRYWSAVTSHT
 AYWSSLDVALFLLTFMYKHEHDDAKPNLDPI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6236_e05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:

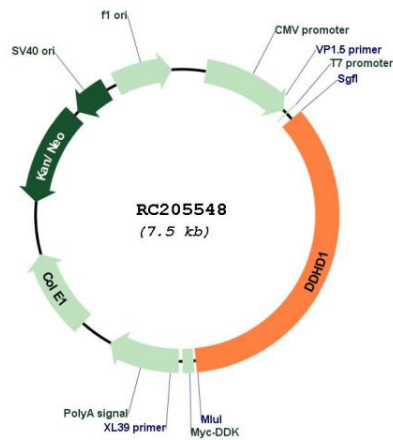


* The last codon before the Stop codon of the ORF

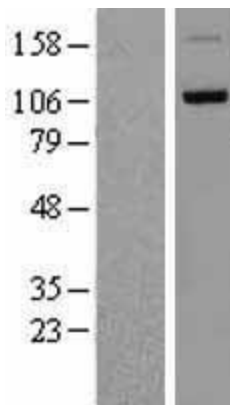
ACCN:	NM_030637
ORF Size:	2616 bp
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own 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:	<ol style="list-style-type: none">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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_030637.1 , NP_085140.1
RefSeq Size:	12885 bp
RefSeq ORF:	2619 bp
Locus ID:	80821
UniProt ID:	Q8NEL9
Cytogenetics:	14q22.1
MW:	97.1 kDa

Gene Summary:

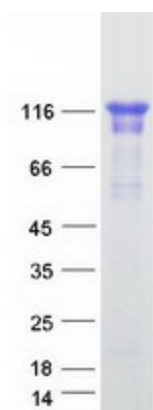
This gene is a member of the intracellular phospholipase A1 gene family. The protein encoded by this gene preferentially hydrolyzes phosphatidic acid. It is a cytosolic protein with some mitochondrial localization, and is thought to be involved in the regulation of mitochondrial dynamics. Overexpression 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]

Product images:


Circular map for RC205548



Western blot validation of overexpression lysate (Cat# [LY410760]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205548 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified DDHD1 protein (Cat# [TP305548]). The protein was produced from HEK293T cells transfected with DDHD1 cDNA clone (Cat# RC205548) using MegaTran 2.0 (Cat# [TT210002]).