

Product datasheet for **RC214215**

OPHN1 (NM_002547) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	OPHN1 (NM_002547) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	OPHN1
Synonyms:	ARHGAP41; MRX60; OPN1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>RC214215 representing NM_002547
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGTCAATCCCCGCTGGAGTTCAGCGACTGCTACCTGGACAGCCCCGATTTCCGCGAGAGGCTCAAGT
 GTTATGAGCAGGAACCTGGAGAGGACCAACAAATTCATCAAGACGTAATCAAAGACGGCAACGCGCTTAT
 CAGCGCTATGAGAAATTATTCTTCTGCTGTTTCAGAAATTTCCAGACGCTGCAGTCATTTAGTTTGTAT
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 TCAACGAGGTAGAAAATGAGAGGATGATGATGGTACACAATGCTAGTGATTTGCTGATTAACCCCTTGGAA
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 AAGGCAGACTTCTGGAGATGAAAGT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC214215 representing NM_002547
 Red=Cloning site Green=Tags(s)

MGHPPLEFSDCYLDSPDFRERLKCQEELERTNKFIDVIKDGNALISAMRNYSSAVQKFSQTLQSFQFD
 FIGDTLTDDEINIAESFKEFAELLNEVENERMMMVMNASDLLIKPLENFRKEQIGFTKERKKKFEKDGER
 FYSLLDRHLHLSSKKESQLQEADLQVDKERHNFESSLDYVYQIQEVQESKKFNIVEPVLAFHSLFIS
 NSLTVELTQDFLPYKQQLQLSLQNRNHFSSSTREEMEELKKRMKEAPQTCKLPGQPTIEGYLYTQEKWAL
 GISWVKYYCQYEKETKLTMTPMQKPGAKQGPLDLTLKYCVRRKTESIDKRFCFIETNERPGTITLQA
 LSEANRRLWMEAMDGKEPIYHSPITKQEMELNEVGKFKVRKCINIIETKGIKTEGLYRTVGSNIQVQKL
 LNAFFDPKCPGDVDFHNSDWDIKTITSSLKFYLRNLSEPVMTYRLHKELVSAAKSDNLDYRLGAIHSLVY
 KLPEKNREMLELLIRHLVNVCEHSKENLMTPSNMGVIFGPTLMRAQEDTVAAMNIKFQNIIVVEILIEHF
 GKIYLGPPPEESAAPPVPPPRVTARRHKPITISKRLLRERTVFYTSSLDESEDEIQHQTPNGTITSSIEPP
 KPPQHPKLPPIQRSGETDPGRKSPSRPILDGKLEPCPEVDVGKLVSRQLDGGTKITPKATNGPMPSGPTK
 TPSFHIKRPAPRPLAHHKEGDADSF SKVRPPGEKPTIIRPPVRPPDPPCRAATPQKPEPKPDIVAGNAGE
 ITSSVVASRTRFFETASRKTGSSQGRLPGDES

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8029_a12.zip

Restriction Sites: Sgfl-MluI

Cloning Scheme:



ACCN:	NM_002547
ORF Size:	2406 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_002547.3](#)

RefSeq Size: 7350 bp

RefSeq ORF: 2409 bp

Locus ID: 4983

UniProt ID: [O60890](#)

Cytogenetics: Xq12

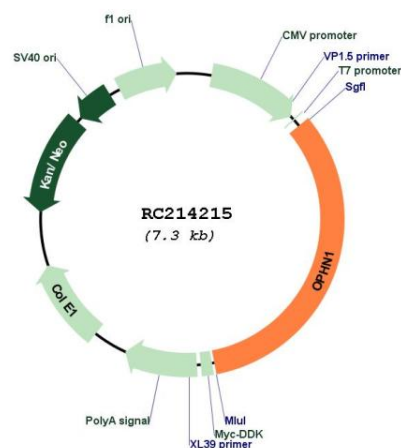
Domains: RhoGAP, PH

Protein Families: Druggable Genome

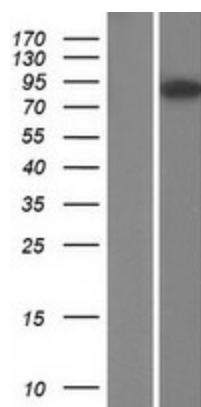
MW: 91.5 kDa

Gene Summary: This gene encodes a Rho-GTPase-activating protein that promotes GTP hydrolysis of Rho subfamily members. Rho proteins are important mediators of intracellular signal transduction, which affects cell migration and cell morphogenesis. Mutations in this gene are responsible for OPHN1-related X-linked cognitive disability with cerebellar hypoplasia and distinctive facial dysmorphism. [provided by RefSeq, Jul 2008]

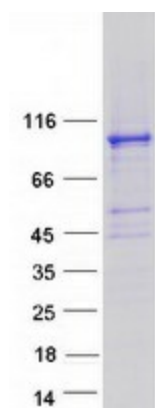
Product images:



Circular map for RC214215



Western blot validation of overexpression lysate (Cat# [LY419253]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214215 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified OPHN1 protein (Cat# [TP314215]). The protein was produced from HEK293T cells transfected with OPHN1 cDNA clone (Cat# RC214215) using MegaTran 2.0 (Cat# [TT210002]).