

Product datasheet for **RC205535**

RND1 (NM_014470) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: RND1 (NM_014470) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: RND1
Synonyms: ARHS; RHO6; RHOS
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC205535 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAAGGAGAGACGGGCCCCCAGCCAGTCGTGGCCAGATGTAAGCTCGTCTGGTGGGGACGTGCAGT
GTGGGAAGACCGCGATGTTGCAAGTGTTAGCGAAGGATTGCTATCCAGAGACCTATGTGCCACCGTGTT
CGAAAATTACACAGCCTGTTGGAGACAGAGGAACAGAGGGTGGAGCTTAGTCTCTGGGATACCTCAGGA
TCTCCCTACTACGATAATGTCCGTCCACTCTGCTACAGCGACTCGGATGCAGTATTACTATGTTTTGACA
TCAGCCGTCCAGAGACAGTGGACAGCGCACTCAAGAAGTGGAGGACAGAAATCCTAGATTATTGTCCCAG
CACCCCGTTTTGCTCATTGGCTGCAAGACAGACCTGCGAACAGACCTGAGTACTCTGATGGAGCTGTCC
CACCAGAAGCAGGCGCCCATCTCTATGAGCAGGGTTGTGCAATAGCAAAGCAGCTGGGTGCAGAAATCT
ACCTGGAAGGCTCAGCTTTCACCTCAGAAAAGAGCATCCACAGCATCTTTCGGACGGCATCCATGCTGTG
TCTGAACAAGCCTAGCCCACTGCCCCAGAAGAGCCCTGTCCGAAGCCTCTCAAACGACTGCTCCACCTC
CCCAGTCGCTCTGAACCTCATCTTCTACCTTCAAGAAGGAAAAGGCCAAAAGCTGTTCCATTATG

ACGCGTACGCGGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC205535 protein sequence
 Red=Cloning site Green=Tags(s)

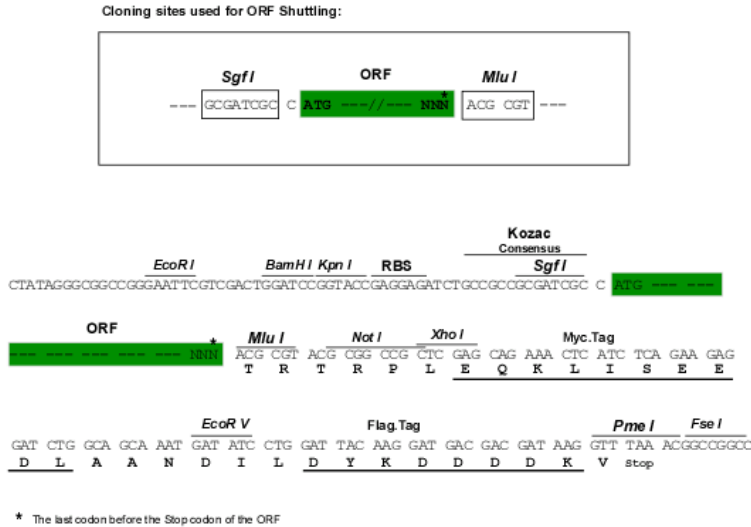
MKERRAPQPVVARCKLVLVGDVQCGKTAMLQVLAKDCYPETYVPTVFENYTACLETEEQRVELSLWDTSG
 SPYYDNVRPLCYSDSDAVLLCFDISRPETVDSALKKWRTEILDYCPSTRVLLIGCKTDLRTDLSTLMELS
 HQKQAPISYEQGCIAKQLGAEIYLEGSAFTSEKSIHSIFRTASMLCLNKPSPLPQKSPVRSLSKRLLHL
 PSRSELISSTFFKKEKAKSCSIM

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6312_g05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_014470

ORF Size: 696 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_014470.4](#)

RefSeq Size: 1665 bp

RefSeq ORF: 699 bp

Locus ID: 27289

UniProt ID: [Q92730](#)

Cytogenetics: 12q13.12

Domains: ras, RAS, RHO, RAB

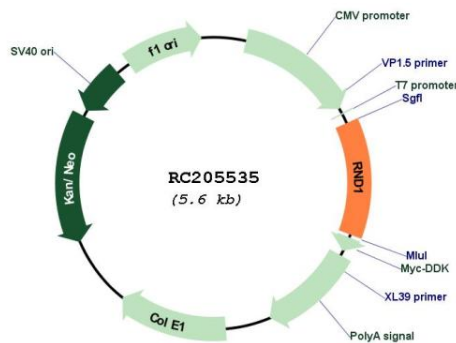
Protein Families: Stem cell - Pluripotency

Protein Pathways: Axon guidance

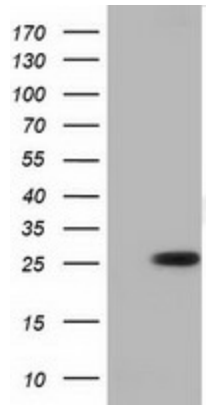
MW: 26.1 kDa

Gene Summary: This gene encodes a protein that belongs to the Rho GTPase family. Members of this family regulate the organization of the actin cytoskeleton in response to extracellular growth factors. A similar protein in rat interacts with a microtubule regulator to control axon extension. [provided by RefSeq, Apr 2014]

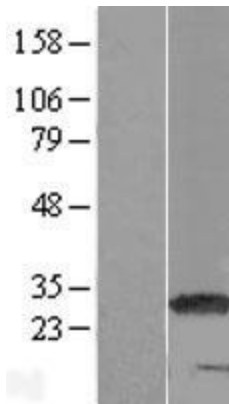
Product images:



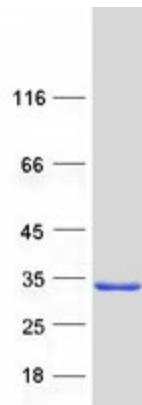
Circular map for RC205535



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY RND1 (Cat# RC205535, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-RND1 (Cat# [TA501691]). Positive lysates [LY415252] (100ug) and [LC415252] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY415252]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205535 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified RND1 protein (Cat# [TP305535]). The protein was produced from HEK293T cells transfected with RND1 cDNA clone (Cat# RC205535) using MegaTran 2.0 (Cat# [TT210002]).