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Product datasheet for RN215409

Rhoa (NM_057132) Rat Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Rhoa (NM_057132) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Rhoa
Synonyms:	Arha; Arha2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>RN215409 representing NM_057132 Red=Cloning site Blue=ORF Orange=Stop codon TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGGCTGCCATCAGGAAGAAACTGGTGATTGTTGGTGATGGAGCTTGTGGTAAGACATGCTTGCTCATAG TCTTCAGCAAGGACCAGTTCCCAGAGGTTTATGTGCCCACGGTGTTTGAAAACTATGTGGCAGATATTGA AGTGGACGGGAAGCAGGTAGAGTTGGCTTTATGGGACACAGCTGGACAGGAAGATTATGACCGTCTGAGG CCTCTCTCCTACCCAGACACTGATGTTATACTGATGTGTTTTTCCATCGACAGCCCTGATAGTTTAGAAA ACATCCCAGAAAAATGGACTCCAGAAGTCAAGCATTTCTGTCCAAATGTGCCCATCATCCTAGTTGGGAA CAAGAAGGATCTTCGGAATGATGAGCACACAAGGCGGGAGTTAGCCAAAATGAAGCAGGAGCCGGTAAAA CCTGAAGAAGGCAGAGATATGGCAAACAGGATTGGCGCTTTTGGGTACATGGAGTGTTCAGCAAAGACCA AAGACGGAGTGAGAGAGGTTTTTGAGATGGCCACGAGAGCTGCTCTGCAAGCTAGACGCGGGAAGAAAAA GTCGGGGTGCCTCATCTTGTGA ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT ACAAGGATGACGACGATAAGGTTTAA
Restriction Sites:	SgfI-MluI
ACCN:	NM_057132
Insert Size:	582 bp

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OTI Disclaimer: 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).

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.

RefSeq: NM_057132.3, NP_476473.1

RefSeq Size: 585 bp

RefSeq ORF: 582 bp

Locus ID: 117273

UniProt ID: P61589

Cytogenetics: 8q32

Gene Summary: Small GTPase which cycles between an active GTP-bound and an inactive GDP-bound state. Mainly associated with cytoskeleton organization, in active state binds to a variety of effector proteins to regulate cellular responses such cytoskeletal dynamics, cell migration and cell cycle. Regulates a signal transduction pathway linking plasma membrane receptors to the assembly of focal adhesions and actin stress fibers. Involved in a microtubule-dependent signal that is required for the myosin contractile ring formation during cell cycle cytokinesis. Plays an essential role in cleavage furrow formation. Required for the apical junction formation of keratinocyte cell-cell adhesion. Essential for the SPATA13-mediated regulation of cell migration and adhesion assembly and disassembly. The MEMO1-RHOA-DIAPH1 signaling pathway plays an important role in ERBB2-dependent stabilization of microtubules at the cell cortex. It controls the localization of APC and CLASP2 to the cell membrane, via the regulation of GSK3B activity. In turn, membrane-bound APC allows the localization of the MACF1 to the cell membrane, which is required for microtubule capture and stabilization (By similarity). Regulates KCNA2 potassium channel activity by reducing its location at the cell surface in response to CHRM1 activation; promotes KCNA2 endocytosis (PubMed:9635436). May be an activator of PLCE1 (By similarity). In neurons, involved in the inhibiton of the initial spine growth. Upon activation by CaMKII, modulates dendritic spine structural plasticity by relaying CaMKII transient activation to synapse-specific, long-term signaling (PubMed:21423166). [UniProtKB/Swiss-Prot Function]