

Product datasheet for MR223809

Rhoh (NM_001081105) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Rhoh (NM_001081105) Mouse Tagged ORF Clone
Tag: Myc-DDK
Symbol: Rhoh
Synonyms: 5830400A04Rik; Arhh; AU019774
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >MR223809 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCCGCATCGCC

ATGCTGAGCTCAATCAAGTGCCTGCTGGTAGGGACAGTCTGTGGGAAAACCTCACTGTTGGTGCCT
 TCACCTCTGAGACCTCCCGGAGGCCTACAAACCCACGGTGTACGAGAATACGGGTGTAGACGTCTTCAT
 GGATGGCATCCAGATCAGCCTGGTCTCTGGGACACTGCCGCAACGACGCCTTCAGAAGTATCCGGCCC
 CTGTCCTACCAGCAGGCAGACGTGGTACTGATGTGCTACTCTGTGGCCAACCATAACTCGTTCCTGA
 TGAAGAACAATGGATTAGTGAGATCAGGAGCAACCTACCCTGTACCCCGGTGCTGGTTGTGGCCACACA
 GACGGACCAGAGAGAGGTGGGACCTCACAGGGCTTCTGCATCAATGCCATAGAAGGGAAGAGACTTGCC
 CAGGATGTGAGAGCCAAGGGCTACCTGGAGTGCTCAGCCCTCAGCAACCGGGGAGTACAGCAGGTATTTG
 AATGTGCTGTCCGAACAGCTGTCAACCAGGCCAGGAGGCCGAAACAGAAGGAAGCTGTTCTCCATCAATGA
 ATGCAAGATCTTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR223809 protein sequence
 Red=Cloning site Green=Tags(s)

MLSSIKCVLVGDSAVGKTSLLVRFTSETFPEAYKPTVYENTGVDVFMDCIQLSLGLWDTAGNDAFRSIRP
 LSYQQADVLMCYSVANHNSFLNLKNKWISEIRSNLPCTPVLVATQTDQREVGPHRASCINAIEGKRLA
 QDVRAKGYLECSALSNRGVQQVFECVAVTAVNQARRRRNRKLFSEINECKIF

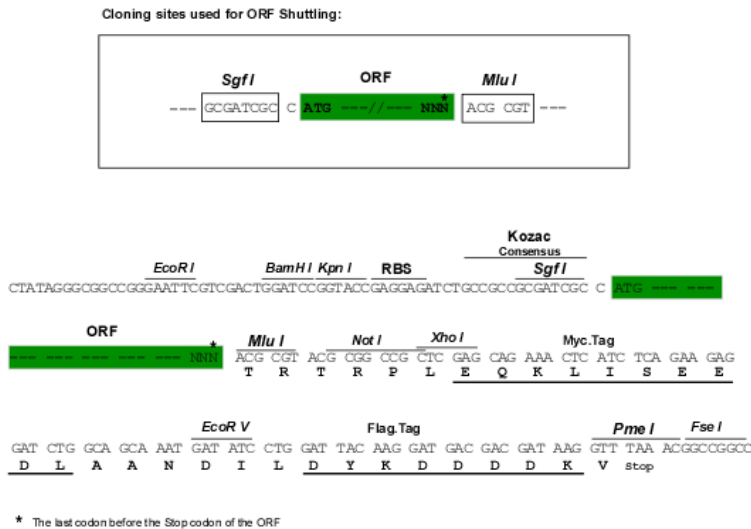
TRTRPLEQKLISEEDLAANDILDYKDDDDKV



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Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001081105

ORF Size: 576 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.

RefSeq: [NM_001081105.2](#)

RefSeq Size: 4960 bp

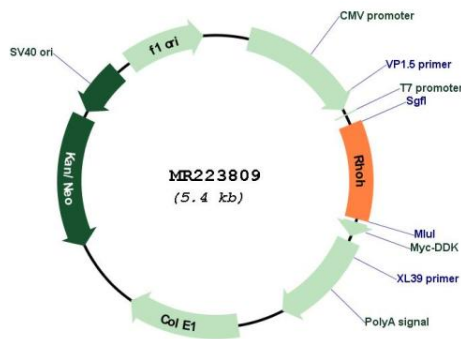
RefSeq ORF: 576 bp

Locus ID: 74734

UniProt ID: [Q9D3G9](#)

Cytogenetics:	5 C3.1
MW:	21.3 kDa
Gene Summary:	Binds GTP but lacks intrinsic GTPase activity and is resistant to Rho-specific GTPase-activating proteins. Inhibits the activation of NF-kappa-B by TNF and IKKB and the activation of CRK/p38 by TNF. Inhibits activities of RAC1, RHOA and CDC42. Negatively regulates leukotriene production in neutrophils (By similarity). Negative regulator of hematopoietic progenitor cell proliferation, survival and migration. Critical regulator of thymocyte development and T-cell antigen receptor (TCR) signaling by mediating recruitment and activation of ZAP70. Required for phosphorylation of CD3Z, membrane translocation of ZAP70 and subsequent activation of the ZAP70-mediated pathways. Essential for efficient beta-selection and positive selection by promoting the ZAP70-dependent phosphorylation of the LAT signalosome during pre-TCR and TCR signaling. Crucial for thymocyte maturation during DN3 to DN4 transition and during positive selection. Plays critical roles in mast cell function by facilitating phosphorylation of SYK in Fc epsilon RI-mediated signal transduction. Essential for the phosphorylation of LAT, LCP2, PLCG1 and PLCG2 and for Ca(2+) mobilization in mast cells.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR223809