

Product datasheet for RC212259

MRAS (NM_012219) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: MRAS (NM_012219) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: MRAS
Synonyms: M-RAS; NS11; R-RAS3; RRAS3
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC212259 representing NM_012219
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCAACCAGCGCCGTCGCCAGTGACAACCTCCCCACATACAAGCTGGTGGTGGTGGGGATGGGGGTG
 TGGGCAAAAGTGCCCTCACCATCCAGTTTTTCCAGAAGATCTTTGTGCCTGACTATGACCCACCATTGA
 AGACTCCTACCTGAAACATACGGAGATTGACAATCAATGGCCATCTTGGACGTTCTGGACACAGCTGGG
 CAGGAGGAATTCAGCGCCATGCGGGAGCAATACATGCGCACGGGGATGGCTTCCTCATCGTCTACTCCG
 TCACTGACAAGGCCAGCTTTGAGCACGTGGACCGCTTCCACCAGTTATCCTGCGCGTCAAAGACAGGGA
 GTATTCCCGATGATCCTCGTGGCCAACAAGGTCGATTTGATGCACTTGAGGAAGATCACCAGGGAGCAA
 GGAAAAGAAATGGCGACCAACAATACTCCGTACATAGAAAACAGTGCCAAGGACCCACTCTCAATG
 TCGACAAAGCCTTCCATGACCTCGTTAGAGTAATTAGGCAACAGATTCGGAAAAAGCCAGAAGAAGAA
 GAAGAAAACCAATGGCGGGGAGACCGGCCACAGGCACCCACAAACTGCAATGTGTGATCTTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC212259 representing NM_012219
 Red=Cloning site Green=Tags(s)

MATSAVPSDNLPYKLVVVGDDGGVSKSALTIQFFQKIFVDPDYDPTIEDSYLKHTEIDNQWAILDVLDTAG
 QEEFSAMREQYMRGDFLIVYSVTDKASFVDRFHQLILRVKDRESFPMILVANKVDLMHLRKITREQ
 GKEMATKHNTPIYIETSAKDPPLNVDKAFHDLVRVIRQQIPEKSQKSKKTKWRGDRATGTHKLQCVIL

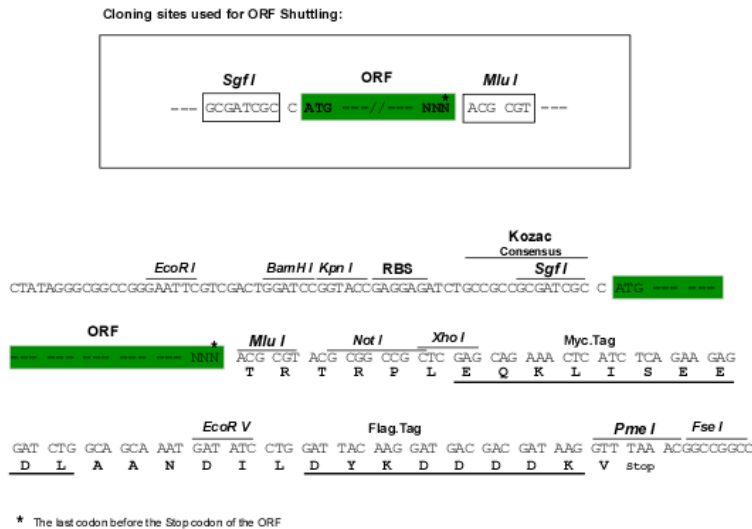
TRTRPLEQKLISEEDLAANDILDYKDDDDKV



Chromatograms: https://cdn.origene.com/chromatograms/mk6480_d08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_012219

ORF Size: 624 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.

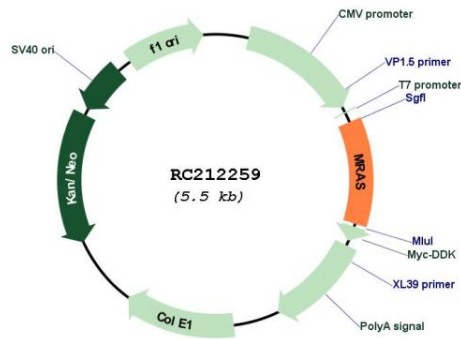
RefSeq: [NM_012219.4](#)

RefSeq Size: 3926 bp

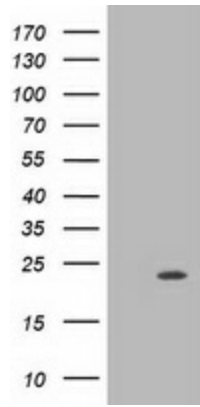
RefSeq ORF:	627 bp
Locus ID:	22808
UniProt ID:	O14807
Cytogenetics:	3q22.3
Domains:	ras, RAN, RAS, RHO, RAB
Protein Families:	Druggable Genome
Protein Pathways:	MAPK signaling pathway, Regulation of actin cytoskeleton, Tight junction
MW:	23.7 kDa

Gene Summary: This gene encodes a member of the Ras family of small GTPases. These membrane-associated proteins function as signal transducers in multiple processes including cell growth and differentiation, and dysregulation of Ras signaling has been associated with many types of cancer. The encoded protein may play a role in the tumor necrosis factor-alpha and MAP kinase signaling pathways. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene. [provided by RefSeq, Nov 2011]

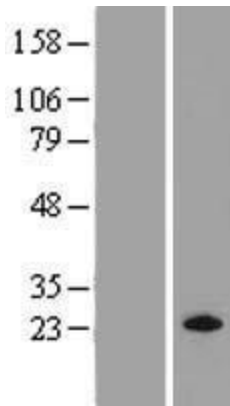
Product images:



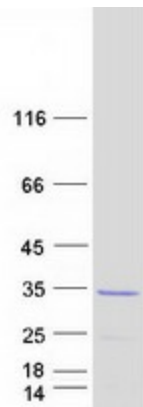
Circular map for RC212259



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY MRAS (Cat# RC212259, 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-MRAS (Cat# [TA502864]). Positive lysates [LY415896] (100ug) and [LC415896] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY421269]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC218272] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MRAS protein (Cat# [TP312259]). The protein was produced from HEK293T cells transfected with MRAS cDNA clone (Cat# RC212259) using MegaTran 2.0 (Cat# [TT210002]).