

Product datasheet for RC210965

ERAS (NM_181532) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ERAS (NM_181532) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ERAS
Synonyms:	HRAS2; HRASP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC210965 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAGCTGCCAACAAAGCCTGGCACCTTCGACCTGGCCTGGCCACATGGAGCCCTTCCTTCCAGGGG
AAACCCACCGGGCTCAGGCACGCCGAGGGATGTTGGCAGGCAGCTGCCTGAGTACAAGGCTGTGGTGGT
GGGCGCCAGTGGCGTGGGCAAGAGTGGCTGACCATCCAGCTGAACCACAGTGTTCGTGGAGGACCAC
GACCCACCATCCAGGATTCCTACTGGAAGGAGTTGACCCTGGACAGTGGGGACTGCATTCTGAATGTGC
TGGACACAGCAGGGCAGGCCATCCATAGGGCCCTGCGTGACCAGTGCCTGGCTGTCTGTGATGGTGTGCT
GGGCGTCTTCGCTCTCGATGACCCCTCGTCTCTGATCCAGCTGCAGCAGATATGGCCACCTGGGGCCCT
CACCCCGCCAGCCCTTGTCTCGTGGCAACAAGTGTGACCTTGTGACCACTGTGGAGATGCTCATG
CCGCTGTGCAGCCCTCGCACACAGCTGGGGGGCCCACTTCGTGGAGACCTCGGCCAAAACAGGCAAGG
CGTGGAGGAGGCCTTTTCCCTGCTGGTCCATGAGATCCAGAGGTTCCAGGAGGCCATGGCGAAGGAGCCC
ATGGCAAGGTCTGTAGGGAGAAGACCCGGCACCAGAAGGCCACCTGCCACTGTGGCTGTCTGTGGCC

ACGCGTACGCGGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



[View online »](#)

Protein Sequence: >RC210965 protein sequence
 Red=Cloning site Green=Tags(s)

MELPTKPGTFDLGLATWSPSFQGETHRAQARRRDVGRQLPEYKAVVVGASGVGKSALTIQLNHQCFVEDH
 DPTIQDSYWKELTLDSGDCILNVLDTAGQAIHRALRDQCLAVCDGVLGVFALDDPSSLIQLQIWA TWGP
 HPAQPLVLVGNKCDLVTTAGDAHAAAAALAHSWGAFHVETSAKTRQGVVEAFSLLVHEIQRVQEAMAKEP
 MARSCREKTRHQKATCHCGCSVA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6371_d10.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_181532

ORF Size: 699 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_181532.3](#)

RefSeq Size: 826 bp

RefSeq ORF: 702 bp

Locus ID: 3266

UniProt ID: [Q7Z444](#)

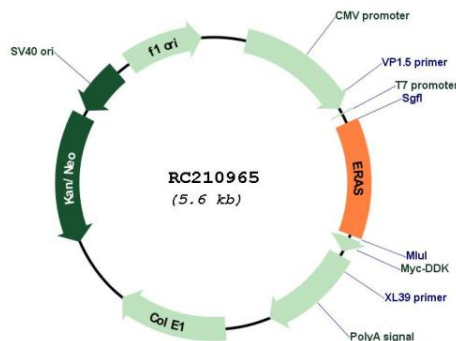
Cytogenetics: Xp11.23

Protein Families: Druggable Genome

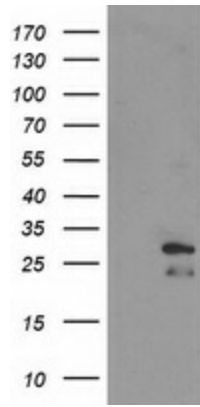
MW: 25.3 kDa

Gene Summary: This gene encodes a constitutively active member of the small GTPase Ras protein family. The encoded protein activates the phosphatidylinositol 3-kinase signal transduction pathway in undifferentiated stem cells, but is not expressed in differentiated cells. This gene may be involved in cancer and chemotherapy resistance. [provided by RefSeq, Dec 2012]

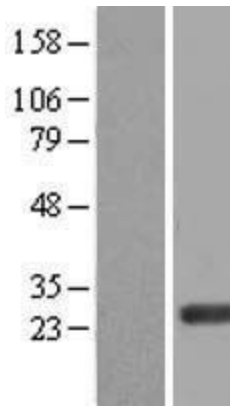
Product images:



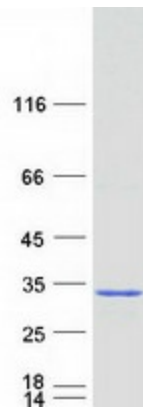
Circular map for RC210965



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ERAS (Cat# RC210965, 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-ERAS (Cat# [TA503689]). Positive lysates [LY405694] (100ug) and [LC405694] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY405694]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210965 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ERAS protein (Cat# [TP310965]). The protein was produced from HEK293T cells transfected with ERAS cDNA clone (Cat# RC210965) using MegaTran 2.0 (Cat# [TT210002]).