

## Product datasheet for **RC213525**

### **RASSF1 (NM\_007182) Human Tagged ORF Clone**

#### Product data:

Product Type:	Expression Plasmids
Product Name:	RASSF1 (NM_007182) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	RASSF1
Synonyms:	123F2; NORE2A; RASSF1A; RDA32; REH3P21
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC213525 representing NM_007182 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGC**

ATGTCGGGGGAGCCTGAGCTCATTGAGCTGCGGGAGCTGGCACCCGCTGGGCGCGCTGGGAAGGGCCGCA  
CCCGGCTGGAGCGTGCCAACGCGCTGCGCATCGCGGGGACCGCGTGCAACCCACACGGCAGCTGGT  
CCCTGGCCGTGGCCACCGCTTCCAGCCCGCGGGCCGCCACGCACAGTGGTGGCAGCTCTGTGGCGAC  
TTCATCTGGGGCGTCGTGCGCAAAGGCCTGCAGTGCAGCGCATTGCAAGTTCACCTGCCACTACCGCTGCC  
GCGCGCTCGTCTGCCTGGACTGTTGCGGGCCCCGGGACCTGGGCTGGGAACCCGCGGTGGAGCGGGACAC  
GAACGTGGACGAGCCTGTGGAGTGGGAGACACCTGACCTTTCTCAATCTGAGATTGAGCAGAAGATCAAG  
GAGTACAATGCCCAGATCAACAGCAACCTCTTCATGAGCTTGAACAAGGACGGTTCTTACACAGGCTTCA  
TCAAGGTTCAAGCTGAAGCTGGTGCGCCCTGTCTGTGCCCTCCAGCAAGAAGCCACCCTCCTTGCAGGA  
TGCCCCGGCGGGGCCAGGACGGGGCACAAGTGTACGGCGCCGCACTTCCTTTTACCTGCCCAAGGATGCT  
GTCAAGCACCTGCATGTGCTGTACGCACAAGGGCACGTGAAGTCATTGAGGCCCTGTGCGAAAGTTCT  
TGGTGGTGGATGACCCCGCAAGTTTGCACCTTTGAGCGCGTGAGCGTCACGGCCAAGTGTACTTGCG  
GAAGCTGTTGGATGATGAGCAGCCCTGCGGCTGCGGCTCCTGGCAGGGCCAGTGACAAGGCCCTGAGC  
TTTGTCTGAAGGAAAATGACTCTGGGGAGGTGAAGTGGGACGCCTTCAGCATGCCTGAAGTACATAACT  
TCCTACGTATCCTGCAGCGGGAGGAGGAGGAGCACCTCCGCCAGATCCTGCAGAAGTACTCCTATTGCCG  
CCAGAAGATCCAAGAGGCCCTGCACGCCTGCCCCCTTGGG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC213525 representing NM\_007182  
 Red=Cloning site Green=Tags(s)

MSGEPELIELRELAPAGRAGKGRTRLERANALRIARGTACNPTRQLVPGRGHRFQPAGPATHTWCDLCGD  
 FIWGVVRKGLQCAHCKFTCHYRCRALVCLDCCGPRDLGWEPVERDTNVDEPVEWETPDLSQSEIEQKIK  
 EYNAQINSNLFMSLNKDGSYTGFIKVQLKLVPRVSVSSKKPPSLQDARRGPGRGTSVRRRTSFYLPKDA  
 VKHLHVLSTRAREVIEALLRKFLVDDPRKFALFERAERHGQVYLRKLLDDEQPLRLLLAGPSDKALS  
 FVLKENDSGEVNWDASFMPELHNFLRILQREEEHLRQILQKYSYCRQKIQEALHACPLG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mg2560\\_c01.zip](https://cdn.origene.com/chromatograms/mg2560_c01.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_007182

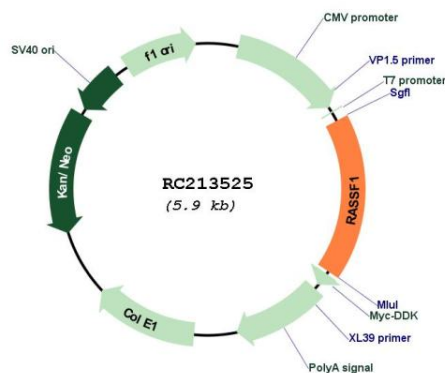
**ORF Size:** 1020 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

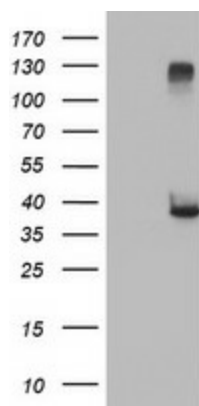
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NM_007182.5</a>
<b>RefSeq Size:</b>	1968 bp
<b>RefSeq ORF:</b>	1023 bp
<b>Locus ID:</b>	11186
<b>UniProt ID:</b>	<a href="#">Q9NS23</a>
<b>Cytogenetics:</b>	3p21.31
<b>Domains:</b>	RA, DAG_PE-bind
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Bladder cancer, Non-small cell lung cancer, Pathways in cancer
<b>MW:</b>	38.6 kDa
<b>Gene Summary:</b>	This gene encodes a protein similar to the RAS effector proteins. Loss or altered expression of this gene has been associated with the pathogenesis of a variety of cancers, which suggests the tumor suppressor function of this gene. The inactivation of this gene was found to be correlated with the hypermethylation of its CpG-island promoter region. The encoded protein was found to interact with DNA repair protein XPA. The protein was also shown to inhibit the accumulation of cyclin D1, and thus induce cell cycle arrest. Several alternatively spliced transcript variants of this gene encoding distinct isoforms have been reported. [provided by RefSeq, May 2011]

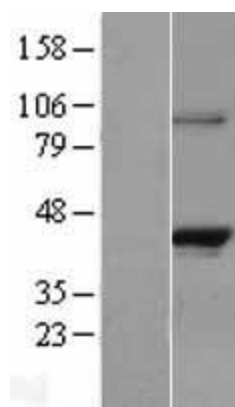
## Product images:



Circular map for RC213525



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY RASSF1 (Cat# RC213525, 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-RASSF1 (Cat# [TA502487]). Positive lysates [LY402099] (100ug) and [LC402099] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY402099]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC213525 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).