

## Product datasheet for **RG221518**

### **RASSF1 (NM\_170714) Human Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** RASSF1 (NM\_170714) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** RASSF1  
**Synonyms:** 123F2; NORE2A; RASSF1A; RDA32; REH3P21  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG221518 representing NM\_170714  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGTCGGGGGAGCCTGAGCTCATTGAGCTGCGGGAGCTGGCACCCGCTGGGCGCGCTGGGAAGGGCCGCA  
 CCCGGCTGGAGCGTGCCAACGCGCTGCGCATCGCGGGGGCACCGCTGCAACCCACACGGCAGCTGGT  
 CCCTGGCCGTGGCCACCGCTTCCAGCCCGGGGGCCGCCACGCACACGTGGTGCACCTCTGTGGCGAC  
 TTCATCTGGGGCGTCGTGCGCAAAGGCCTGCAGTGCAGCGCCTCTCTGCAGATTGCAAGTTCACCTGCC  
 ACTACCGCTGCCGCGCTCGTCTGCCTGGACTGTTGCGGGCCCCGGGACCTGGGCTGGGAACCCGCGGT  
 GGAGCGGGACACGAACGTGGACGAGCCTGTGGAGTGGGAGACACCTGACCTTTCTCAAGCTGAGATTGAG  
 CAGAAGATCAAGGAGTACAATGCCAGATCAACAGCAACCTTTCATGAGCTTGAACAAGGACGGTCTT  
 ACACAGGCTTCATCAAGTTTCAGCTGAAGCTGGTGCGCCCTGTCTCTGTGCCCTCCAGCAAGAAGCCACC  
 CTCCTTGCAAGATGCCCGCGGGGCCAGGACGGGGCACAAGTGTGAGGCGCCGCACTTCCTTTTACCTG  
 CCCAAGGATGCTGTCAAGCACCTGCATGTGCTGTACGCACAAGGGCACGTGAAGTATTGAGGCCCTGC  
 TGCGAAAGTCTTGGTGGTGGATGACCCCGCAAGTTGCACTCTTTGAGCGCGCTGAGCGTCACGGCCA  
 AGTGTACTTGCGGAAGCTGTTGGATGATGAGCAGCCCCGCGGCTGCGGCTCTGGCAGGGCCCAAGTGAC  
 AAGGCCCTGAGCTTTGCTCTGAAGGAAAATGACTCTGGGGAGGTGAACCTGGGACGCTTCAGCATGCCTG  
 AACTACATAACTTCTAGTATCCTGCAGCGGGAGGAGGAGGACACCTCCGCCAGATCCTGCAGAAGTA  
 CTCTATTGCCGCCAGAAGATCCAAGAGGCCCTGCACGCCTGCCCCCTTGGG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG221518 representing NM\_170714  
 Red=Cloning site Green=Tags(s)

MSGEPELIELRELAPAGRAGKGRTRLERANALRIARGTACNPTRQLVPGRGHRFQPAGPATHTWCDLCGD  
 FIWGVVRKGLQCARLSADCKFTCHYRCRALVCLDCCGPRDLGWEP AVERDTNVDEPVEWETPDL SQA EIE  
 QKIKEYNAQINSNLFMSLNKDGSYTGF IKVQLKLV RPVSV P SSKKPPSLQDARRGPGRGTSVRRRTSFYL  
 PKDAVKHLHVL SRTRAREVIEALLRKFLV VDDPRKFAL FERAERHGQVYLRKLLDDEQPLRLRLLAGPSD  
 KALSFVLKENDSGEVN WDAF SMPELHNFLRILQREEEHLRQILQKYSYCRQKIQEALHACPLG

TRTRPLE - GFP Tag - V

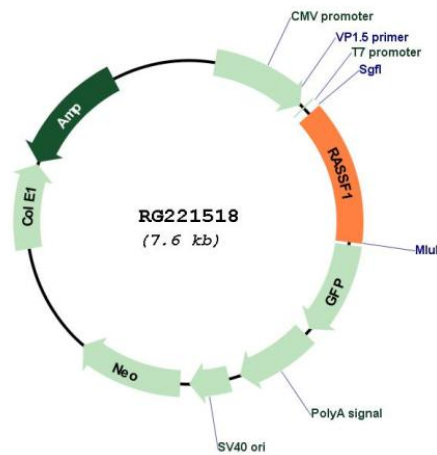
**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



**Plasmid Map:**



**ACCN:** NM\_170714

**ORF Size:** 1032 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<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>RefSeq:</b>	<a href="#">NM_170714.2</a>
<b>RefSeq Size:</b>	1979 bp
<b>RefSeq ORF:</b>	1035 bp
<b>Locus ID:</b>	11186
<b>UniProt ID:</b>	<a href="#">Q9NS23</a>
<b>Cytogenetics:</b>	3p21.31
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Bladder cancer, Non-small cell lung cancer, Pathways in cancer
<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]