

Product datasheet for **RG201454**

RASD2 (NM_014310) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RASD2 (NM_014310) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	RASD2
Synonyms:	Rhes; TEM2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG201454 representing NM_014310 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGATGAAGACTTTGTCCAGCGGGAAGTGCACGCTCAGTGTGCCCGCCAAAACTCATACCGCATGGTGG
TGCTGGGTGCCTCTCGGGTGGGCAAGAGCTCCATCGTGTCTCGCTTCTCAATGGCCGCTTTGAGGACCA
GTACACACCCACCATCGAGGACTTCCACCGTAAGGTATAACAACATCCGCGGCGACATGTACCAGCTCGAC
ATCCTGGATACCTCTGGCAACCACCCCTTCCCCGCCATGCGCAGGCTGTCCATCCTCACAGGGGATGTCT
TCATCCTGGTGTTCAGCCTGGATAACCGGGAGTCTTCGATGAGGTCAAGCGCCTTCAGAAGCAGATCCT
GGAGGTCAAGTCCTGCCTGAAGAACAAGACCAAGGAGGCGCGGAGCTGCCCATGGTCATCTGTGGCAAC
AAGAACGACCACGGCGAGCTGTGCCGCCAGGTGCCACCACCGAGGCCGAGCTGTGGTGTCTGGGCGACG
AGAAGTGCCTACTTCGAGGTGTCTGGCCAAGAAGAACAACCAACGTGGACGAGATGTTCTACGTGCTCTT
CAGCATGGCCAAGCTGCCACACGAGATGAGCCCCGCCCTGCATCGCAAGATCTCCGTGCAGTACGGTGAC
GCCTTCCACCCAGGCCCTTCTGCATGCGCCGCGTCAAGGAGATGGACGCCTATGGCATGGTCTCGCCCT
TCGCCCCCGCCAGCGTCAACAGTGACCTCAAGTACATCAAGGCCAAGGTCTTCGGGAAGGCCAGGC
CCGTGAGAGGGACAAGTGCACCATCCAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG201454 representing NM_014310
 Red=Cloning site Green=Tags(s)

MMKTLSSGNCTLSPAKNSYRMVVLGASRVGKSSIVSRFLNGRFEDQYPTPTIEDFHRKVYNIIRGDMYQLD
 ILDTSGNHPFPAMRRLSILTGDFILVFLSNDRESFDEVKRLQKQILEVKSLKNTKEAAELPMVICGN
 KNDHGELCRQVPTTEALLVSGDENCAYPEVSARKNTNVDEMFFVLFVSMKLPHEMSPALHRKISVQYGD
 AFHPRPFCMRRVKEMDAYGMVSPFARRPSVNSDLKYIKAKVLRGQARERDKCTIQ

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_014310

ORF Size: 798 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_014310.4](#)

RefSeq Size: 3047 bp

RefSeq ORF: 801 bp

Locus ID: 23551

UniProt ID: [Q96D21](#)

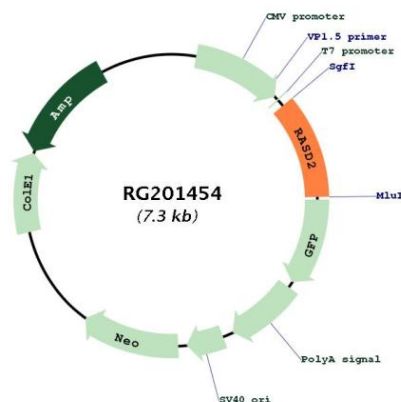
Cytogenetics: 22q12.3

Domains: ras, RAN, RAS, RHO, RAB

Protein Families: Druggable Genome

Gene Summary: This gene belongs to the Ras superfamily of small GTPases and is enriched in the striatum. The encoded protein functions as an E3 ligase for attachment of small ubiquitin-like modifier (SUMO). This protein also binds to mutant huntingtin (mHtt), the protein mutated in Huntington disease (HD). Sumoylation of mHTT by this protein may cause degeneration of the striatum. The protein functions as an activator of mechanistic target of rapamycin 1 (mTOR1), which in turn plays a role in myelination, axon growth and regeneration. Reduced levels of mRNA expressed by this gene were found in HD patients. [provided by RefSeq, Jan 2016]

Product images:



Circular map for RG201454