

Product datasheet for **RG222055**

RAPGEF2 (NM_014247) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RAPGEF2 (NM_014247) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	RAPGEF2
Synonyms:	CNrasGEF; NRAPGEP; nRap GEP; PDZ-GEF1; PDZGEF1; RA-GEF; RA-GEF-1; RAGEF; Rap-GEP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG222055 representing NM_014247 Red=Cloning site Blue=ORF Green=Tags(s)

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GCC**CGATCGCC**

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Protein Sequence: >RG222055 representing NM_014247
 Red=Cloning site Green=Tags(s)

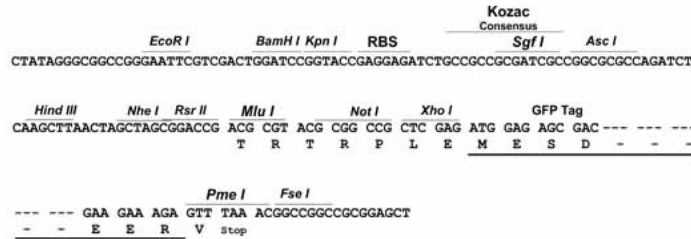
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TRTRPLE - GFP Tag - V

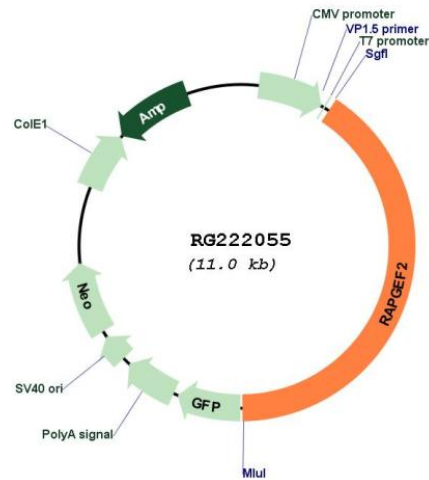
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_014247

ORF Size: 4497 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:	<ol style="list-style-type: none">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_014247.1 , NP_055062.1
RefSeq Size:	6568 bp
RefSeq ORF:	4500 bp
Locus ID:	9693
UniProt ID:	Q9Y4G8
Cytogenetics:	4q32.1
Domains:	RA, cNMP, RasGEFN, PDZ, RasGEF
Protein Pathways:	MAPK signaling pathway
Gene Summary:	Members of the RAS (see HRAS; MIM 190020) subfamily of GTPases function in signal transduction as GTP/GDP-regulated switches that cycle between inactive GDP- and active GTP-bound states. Guanine nucleotide exchange factors (GEFs), such as RAPGEF2, serve as RAS activators by promoting acquisition of GTP to maintain the active GTP-bound state and are the key link between cell surface receptors and RAS activation (Rebhun et al., 2000 [PubMed 10934204]).[supplied by OMIM, Mar 2008]