

Product datasheet for **MG224013**

Robo1 (NM_019413) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Robo1 (NM_019413) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Robo1
Synonyms:	AW494633; AW742721; DUTT1; Gm310
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG224013 representing NM_019413 Red=Cloning site Blue=ORF Green=Tags(s)

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Protein Sequence: >MG224013 representing NM_019413
 Red=Cloning site Green=Tags(s)

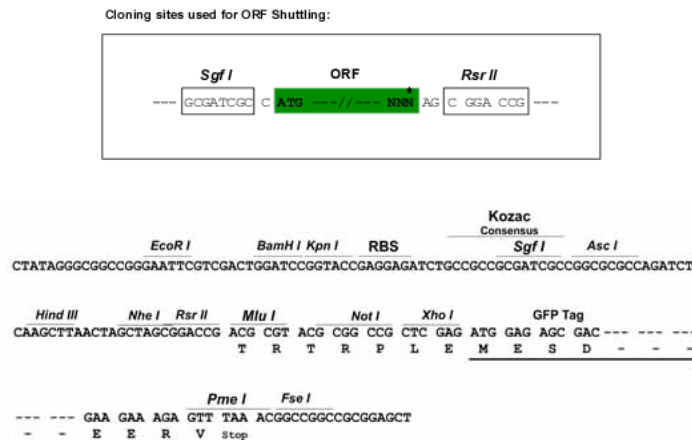
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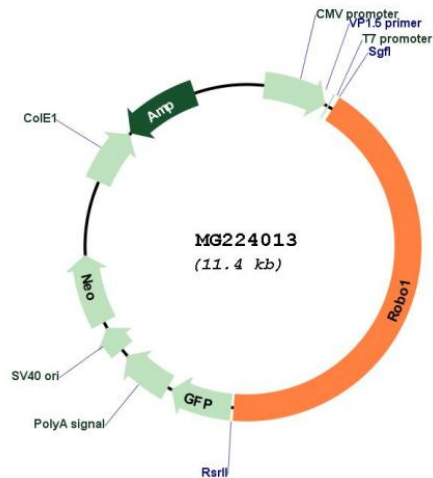
Restriction Sites:

SgfI-RsrII

Cloning Scheme:



Plasmid Map:



ACCN: NM_019413

ORF Size: 4836 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_019413.2](#), [NP_062286.2](#)

RefSeq Size: 7568 bp

RefSeq ORF: 4839 bp

Locus ID: 19876

UniProt ID: [O89026](#)

Cytogenetics: 16 C3.1

Gene Summary: Receptor for SLIT1 and SLIT2 that mediates cellular responses to molecular guidance cues in cellular migration, including axonal navigation at the ventral midline of the neural tube and projection of axons to different regions during neuronal development (PubMed:10433822, PubMed:24560577). Interaction with the intracellular domain of FLRT3 mediates axon attraction towards cells expressing NTN1 (PubMed:24560577). In axon growth cones, the silencing of the attractive effect of NTN1 by SLIT2 may require the formation of a ROBO1-DCC complex (By similarity). Plays a role in the regulation of cell migration via its interaction with MYO9B; inhibits MYO9B-mediated stimulation of RHOA GTPase activity, and thereby leads to increased levels of active, GTP-bound RHOA (By similarity). May be required for lung development (PubMed:11734623).[UniProtKB/Swiss-Prot Function]