

## Product datasheet for RC213799

### ROBO1 (NM\_002941) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ROBO1 (NM_002941) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ROBO1
Synonyms:	DUTT1; SAX3
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC213799 representing NM_002941 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
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TGGCCAGCTTATCCAGACCCTGAAGATGTAGAGAGGGGAACGACCACGGGACGCCAATCCCCACCTC  
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ATGCTAAGCTGGGTGATACTGGTCGGTACACCTGCATTGCATCAACCCCAAGTGGTGAAGCAACATGGAG  
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**Protein Sequence:** >RC213799 representing NM\_002941  
 Red=Cloning site Green=Tags(s)

MKWKHVPFLVMISLLSLSPNHLFLAQLIPDPEDVERGNDHGTPIPTSDNDDNSLGYTGSRLRQEDFPRI  
 VEHPSDLIVSKGEPATLNCKAEGRPPTIEWYKGGERVE TKDDPRSHRMLLPSGSLFFLRIVHGRKSRP  
 DEGVYVCVARNYLGEAVSHNASLEVAAILRDDFRQNPSDVMVAVGEPAVMECQPPRGHPEPTISWKKDGSP  
 LDDKDERITIRGGKLMITYTRKSDAGKYVCVGTNMVGERESEVAELTVLERPSFVKRPSNLAVTVDDSAE  
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 EDEADMEVAKMQTRRLLLRGLEQTPASSVGDLESSVTGSMINGWGSASEEDNISSGRSSVSSDGSFFTD  
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 LRRETYTDDLPPPPVPPPAIKSPTAQSKTQLEVRPVVVKLPMSDARTDRSSDRKSSYKREVLDRQV  
 VDMRTNPGDPREAEQQNDGKGRGNKAAKRDLPKAKTHLIQEDILPYCRPTFPTSNPRDPSSSSSMSSR  
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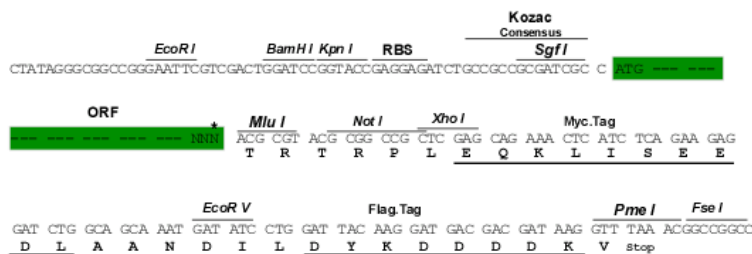
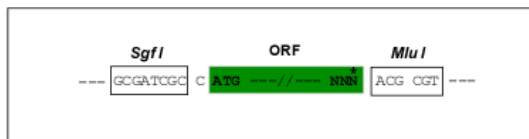
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

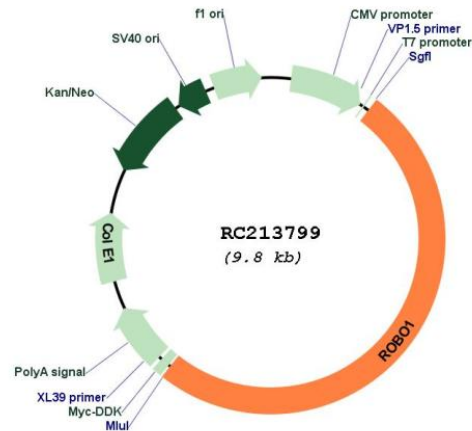
SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**Plasmid Map:**


**ACCN:** NM\_002941

**ORF Size:** 4953 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\\_002941.4](#)

**RefSeq Size:** 6895 bp

**RefSeq ORF:** 4956 bp

**Locus ID:** 6091  
**UniProt ID:** [Q9Y6N7](#)  
**Cytogenetics:** 3p12.3  
**Domains:** ig, IGv, IGc2, IG, FN3  
**Protein Families:** Druggable Genome  
**Protein Pathways:** Axon guidance  
**MW:** 180.9 kDa

**Gene Summary:** Bilateral symmetric nervous systems have special midline structures that establish a partition between the two mirror image halves. Some axons project toward and across the midline in response to long-range chemoattractants emanating from the midline. The product of this gene is a member of the immunoglobulin gene superfamily and encodes an integral membrane protein that functions in axon guidance and neuronal precursor cell migration. This receptor is activated by SLIT-family proteins, resulting in a repulsive effect on glioma cell guidance in the developing brain. A related gene is located at an adjacent region on chromosome 3. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Mar 2009]