

Product datasheet for RC211961

ROBO1 (NM_133631) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | ROBO1 (NM_133631) Human Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | ROBO1 |
| Synonyms: | DUTT1; SAX3 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |
| ORF Nucleotide Sequence: | >RC211961 representing NM_133631 Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGATTGCGGAGCCCGCTCACTTTTACCTGTTTGGATTAATATGTCTCTGTTTCAGGCTCCCGTCTTCGTC
AGGAAGATTTTCCACCTCGCATTGTTGAACACCCTTCAGACCTGATTGTCTCAAAGGAGAACCTGCAAC
TTTGAAGTCAAAGCTGAAGGCCGCCACACCCACTATTGAATGGTACAAAGGGGGAGAGAGAGTGGAG
ACAGACAAAGATGACCCTCGCTCACACCGAATGTTGCTGCCGAGTGGATCTTTATTTTTCTTACGTATAG
TACATGGACGGAAAAGTAGACCTGATGAAGGAGTCTATGTCTGTGTAGCAAGGAATTACCTTGGAGAGGC
TGTGAGCCACAATGCATCGCTGGAAGTAGCCATACTTCGGGATGACTTCAGACAAAACCTTCGGATGTC
ATGGTTGCAGTAGGAGAGCCTGCAGTAATGGAATGCCAACCTCCACGAGGCCATCCTGAGCCACCATT
CATGGAAGAAAGATGGCTCTCCACTGGATGATAAAGATGAAAGAATAACTATACGAGGAGGAAAGCTCAT
GATCACTTACACCCGTAAGAGTACGCTGGCAAAATGTTTGTGTTGGTACCAATATGGTTGGGGAACGT
GAGAGTGAAGTAGCCGAGCTGACTGTCTTAGAGAGACCATCATTTGTGAAGAGACCCAGTAACTTGGCAG
TAACTGTGGATGACAGTGCAGAATTTAAATGTGAGGCCGAGGTGACCCTGTACCTACAGTACGATGGAG
GAAAGATGATGGAGAGCTGCCAAATCCAGATATGAAATCCGAGATGATCATACCTTGAAATAGGAAG
GTGACAGCTGGTACATGGGTTTACACTTGTGTTGCAGAAAATATGGTGGGCAAGCTGAAGCATCTG
CTACTGACTGTTCAAGTTGGGTCTGAACCTCCACATTTTGTGTGAAACCCCGTACCAGGTTGTTGC
TTTGGGACGACTGTAACTTTTCACTGTGAAGCAACCGAAATCCTCAACCAGCTATTTTCTGGAGGAGA
GAAGGGAGTCAGAATCTACTTTTCTCATATCAACCACCACAGTATCCAGCCGATTTTCACTCTCCAGA
CTGGCGACCTCACAATTACTAATGTCCAGCGATCTGATGTTGGTTATTACATCTGCCAGACTTTAAATGT
TGCTGGAAGCATCATCACAAGGCATATTTGGAAGTTACAGATGTGATTGCAGATCGGCCTCCCCAGTT
ATTCGACAAGGTCCTGTGAATCAGACTGTAGCCGTGGATGGCACTTTCGTCCTCAGCTGTGTGGCCACAG
GCAGTCCAGTGCCACCATTCTGTGGAGAAAGGATGGAGTCTCGTTTCAACCAAGACTCTCGAATCAA
ACAGTTGGAGAATGGAGTACTGCAGATCCGATATGCTAAGCTGGGTGATACTGGTCCGTACACCTGCATT



GCATCAACCCCACTGGTGAAGCAACATGGAGTGCTTACATTGAAGTTCAAGAATTTGGAGTTCCAGTTC
 AGCCTCCAAGACCTACTGACCCAAATTTAATCCCTAGTGCCCATCAAAACCTGAAGTGACAGATGTCAG
 CAGAAATACAGTCACATTATCGTGGCAACCAATTTGAATTCAGGAGCAACTCCAACATCTTATATTATA
 GAAGCCTTCAGCCATGCATCTGGTAGCAGCTGGCAGACCGTAGCAGAGAAATGTGAAAACAGAAACATCTG
 CCATTAAGGACTCAAACCTAATGCAATTTACCTTTTCTGTGAGGGCAGCTAATGCATATGGAATTAG
 TGATCCAAGCCAAATATCAGATCCAGTGAACACAAGATGTCTACCAACAAGTCAGGGGTGGACCAC
 AAGCAGGTCCAGAGAGAGCTGGGAAATGCTGTTCTGCACCTCCACAACCCACCGTCTTTCTTCTCTT
 CCATCGAAGTGCACTGGACAGTAGATCAACAGTCTCAGTATATACAAGGATATAAAAATTCCTATCGGCC
 ATCTGGAGCCAACCCAGGAGAATCAGACTGGTTAGTTTTTGAAGTGAGGACGCCAGCCAAAAACAGTGTG
 GTAATCCCTGATCTCAGAAAGGGAGTCAACTATGAAATTAAGGCTCGCCCTTTTTTAATGAATTTCAAG
 GAGCAGATAGTGAATCAAGTTTGC AAAACCTGGAAGAAGCACCCAGTGCCCAACCCCAAGGTGTAAC
 TGTATCCAAGAATGATGGAACGGAACGCAATCTAGTTAGTTGGCAGCCACCTCCAGAAGACTCAA
 AATGGAATGGTCCAAGAGTAAAGTTTGGTGTCTGGCAATGAACTCGATACCACATCAAAAAACAG
 TGGATGGTTCCACCTTTCCGTGGTCTTCCCTTTCTTGTCTGGAATCCGATACAGTGTGGAAGTGGC
 AGCCAGCACTGGGCTGGGTCTGGGTAAAGAGTGAGCCTCAGTTCATCCAGCTGGATGCCATGGAAC
 CCTGTGTACCTGAGGACCAAGTCAGCCTCGCTCAGCAGATTTAGATGTGGTGAAGCAGCCGGCCTTCA
 TAGCAGGTATTGGAGCAGCCTGTTGGATCATCCTCATGGTCTTTCAGCATCTGGCTTTATCGACACCGCAA
 GAAGAGAAACGGACTTACTAGTACCTACGCGGGTATCAGAAAAGTCCCCTTTTTACCTTACACCAACA
 GTAACCTACCAGAGAGGAGGCGAAGCTGTGAGCAGTGGAGGGAGGCTGGACTTCTCAACATCAGTGAAC
 CTGCCGCGCAGCCATGGCTGGCAGACAGTGGCCTAATACTGGCAACAACCAATGACTGCTCCATCAG
 CTGCTGCACGGCAGGCAATGGAACAGCGCAGCAACCTCACTACCTACAGTCGCCCAGCTGATTGTATA
 GCAAAATATAACAACCAACTGGATAACAACAACAACAACTGATGCTCCCTGAGTCAACTGTTTATGGTG
 ATGTGGACCTTAGTAACAAAATCAATGAGATGAAAACCTTCAATAGCCAAATCTGAAGGATGGCGTTT
 TGTCAATCCATCAGGGCAGCCTACTCTTACGCCACCACCTCAGCTCATCCAGTCAAACCTCAGCAACAAC
 ATGAACAATGGCAGCGGGGACTCTGGCAGAAAGCACTGGAACCACTGGGACAGCAGAAAACAAGAGTGG
 CACCAGTTCAGTACAACATCGTGGAGCAAAAACAAGCTGAACAAAGATTATCGAGCAAATGACACAGTTC
 TCCAACCTATCCCATACAACCAATCATACGACCAGAACACAGGAGGATCCTACAACAGCTCAGACCGGGG
 AGTAGTACATCTGGGAGTCAAGGAGGCAAGAAAGGGGCAAGAACCCCAAGGTACCAAAACAGGGTGGCA
 TGAAGTGGCAGACCTGCTTCTCCTCCCCAGCACATCCTCCTCCACACAGCAATAGCGAAGAGTACAA
 CATTCTGTAGATGAAAGCTATGACCAAGAAATGCCATGTCCCCTGCCACCAGCAAGGATGATTTGCAA
 CAAGATGAATTAGAAGAGGAGGAAGATGAACGAGGCCCACTCCCCTGTTCCGGGAGCAGCTTCTTCTC
 CAGCTGCCGTGTCTATAGCCATCAGTCCACTGCCACTGACTCCCTCCCACAGGAAGAACTCCAGCC
 CATGTTACAGGATTGTCCAGAGGAGACTGGCCACATGCAGCACCAGCCGACAGGAGACGGCAGCCTGTG
 AGTCTCTCCACCACCAGGCCGATCTCCCCTCCACATACCTATGGCTACATTTTCAGGACCCCTGGTCT
 CAGATATGGATACGGATGCGCCAGAAGAGGAAGAAGACGAAGCCGACATGGAGGTAGCCAAGATGCAAAAC
 CAGAAGGCTTTTGTACGTGGGCTTGGCAGACACCTGCCTCCAGTGTGGGGACCTGGAGAGCTGTGC
 ACGGGTCCATGATCAACGGCTGGGCTCAGCCTCAGAGGAGGACAACATTTCCAGCGGACGCTCCAGTG
 TTAGTTCTCGGACGGCTCCTTTTTCACTGATGCTGACTTTGCCAGGCAAGTCCGACAGCGCAGAGTA
 TGCTGGTCTGAAAGTAGCACGACGGCAATGCAGGATGCTGTGCGCCGTCGACATTTTTCATGCGTCTCAG
 TGCCCTAGGCCCAAGTCCCCTGTCTACAGACAGCAACATGAGTGCCCGCTAATGCAGAAAACAGAC
 CAGCCAAGAACTGAAACACCAGCCAGGACATCTGCGCAGAGAACTACACAGATGATCTTCCACCACC
 TCTGTGCCGCCACCTGTATAAAGTCACTACTGCCAATCCAAGACACAGCTGGAAGTACGACCTGTA
 GTGGTGCCAAAACCTCCTTCTATGGATGCAAGAACAGACAGATCATCAGACAGAAAAGGAAGCAGTTACA
 AGGGGAGAGAAGTGTGGATGGAAGACAGGTTGTTGACATGCGAACAATCCAGGTGATCCAGAGAAGC
 ACAGGAACAGCAAAATGACGGGAAAGGACGTGGAACAAGGCAGCAAAACGAGACCTTCCACCAGCAAAG
 ACTCATCTCATCAAGAGGATATTCTACCTTATTGTAGACCTACTTTTCCAACATCAAATAATCCCAGAG
 ATCCCAGTTCCTCAAGCTCAATGTCATCAAGAGGATCAGGAAGCAGACAAAGAGAACAAGCAAATGTAGG
 TCGAAGAAATATTGCAGAAATGCAGGACTTGGAGGATATGAAAGAGGAGAAGATAATAATGAAGAATTA
 GAGGAACTGAAAGC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTAA

Protein Sequence: >RC211961 representing NM_133631
 Red=Cloning site Green=Tags(s)

MIAEPAHFYLFGLICLCSGSRRLRQEDFPPRIVEHPSDLIVSKGEPATLNCKAEGRPPTPTIEWYKGGERVE
 TDKDDPRSHRMLLPSGSLFFLRIVHGRKSRPDEGVVYCVARNYLGEAVSHNASLEVAILRDDFRQNP
 SDV MVAVGEPAVMECQPPRGHPEPTISWKKDGSPLDDKDERITIRGGKLMITYTRKSDAGKYVCVGTNMVGER
 ESEVAELTVLERPSFVKRPSNLAVTVDDSAEFKCEARGDPVPTVWRKDDGELPKSRYEIRDHTLKIRK
 VTAGDMGSYTCVAENMVGKAEASATLTVQVGSEPPHFVVKPRDQVVALGRTVTFQCEATGNPQPAIFWRR
 EGSQNLFFSYQPPQSSSRFSVSQTGDLTITNVQRSDVGYIYCQTLNVAGSIITKAYLEVTVDVIADRPPPV
 IRQGPVNTVAVDGTFVLSCVATGSPVPTILWRKDGVLVSTQDSRIKQLENGVLQIRYAKLGDTRGYTCI
 ASTPSGEATWSAYIEVQEFVGPVQPPRPTDPNLIPSAPSKPEVTDVSRNTVTLVSWQPNLNSGATPTS
 SYIEAFSHASGSSWQVAENVKTETSAIKGLKPNAIYLFVRAANAYGISDPSQISDPVKTQDVLPTSQGV
 DHKQVQRELGNVHLHNPVLSSSSIEVHWTVDQSQYIQGYKILYRPSGANHGESDWLVFEVTRPAKNSV
 VIPDLRKGVNYEIKARPFNFQADSEIKFAKLEEAPSAPPQVTVSKNDGNGTAILVSWQPPPEDTQ
 NGMVQYKVVWCLGNETRYHINKTVDGSTFSVVIPLVPGIRYSVEVAASTGAGSGVKSEPQFIQLDAHGN
 PVPSPEDQVSLAQQISDVVKQPAFIAGIGAACWIILMVFSIWLYRHRKRNGLTSTYAGIRKVPSTFTPT
 VTYQRGGEAVSSGGRPGLLNISEPAAQPWLADTWPNTGNNHNDCSI SCCTAGNGNSDSLTTYSRPADCI
 ANYNNQLDNKQTNLMLPESTVYGDVDLSNKINEMKTFNSPNLKDGRFVNPSPGQPTPYATTQLIQSNL
 SNNMNGSGDSGKHKWPLGQQKQEVAPVQYNIVEQNLNKDYRANDTVPPTIPYNQSYDQNTGGSYNSSDRG
 SSTSGSQGHKKGARTPKVVKQGGMNWADLLPPPAHPPPHSNSEEYNI SVDESYDQEMPCVPPARMYLQ
 QDELEEEEDERGPTPPVGAASSPAAVSYSHQSTATLTPSPQEELQPMLQDCPEETGHMQHQPD
 RRRQPV SPPPPRPISPPTYGYISGPLVSDMDTDAPEEEDEADMEVAKMQTRRRLLRLGLEQTPASSV
 GDLESSV TGSMINGWGSASEEDNISSGRSSVSSSDGSFFTDADFAQAVAAAAYAGLKVARRQMQDA
 AAGRRHFHASQ CPRPTSPVSTDSNMSAAVMQKTRPAKCLKHPGHLRRETYDDDLPPPPVPPPAIKSPTA
 QSKTQLEVRPV VVPKLPMSDARTDRSSDRKSSYKGREVL DGRQVDMRTNPGDPREAEQQNDGKGRG
 NKAARDLPPAK THLIQEDILPYCRPTFPTSNPRDPSSSSSMSSRSGSRQREQANVGRNIAEMQVLGGY
 ERGEDNNEEL EETES

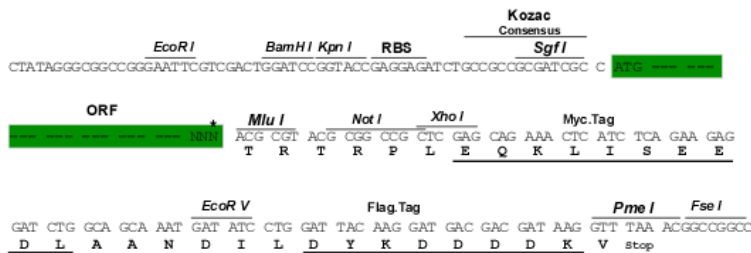
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg4314_h11.zip

Restriction Sites: Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_133631

ORF Size: 4845 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_133631.2](#)

RefSeq Size: 7475 bp

RefSeq ORF: 4821 bp

Locus ID: 6091

UniProt ID: [Q9Y6N7](#)

Cytogenetics: 3p12.3

Domains: ig, FN3

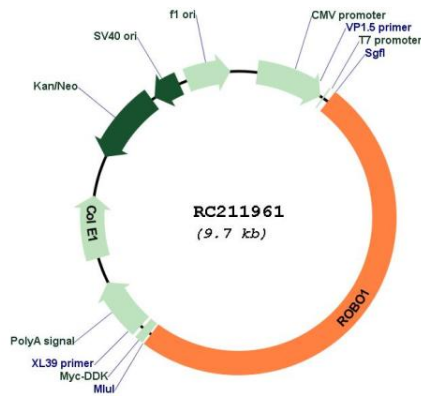
Protein Families: Druggable Genome

Protein Pathways: Axon guidance

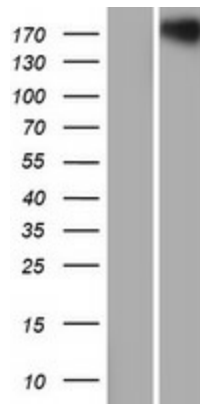
MW: 175.7 kDa

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]

Product images:


Circular map for RC211961



Western blot validation of overexpression lysate (Cat# [LY408772]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC211961 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).