

Product datasheet for **MR231416**

Unc5c (NM_001293561) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Unc5c (NM_001293561) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Unc5c
Synonyms:	B130051O18Rik; rcm; Unc5h3
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>MR231416 representing NM_001293561
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAGGAAAGGTCTGAGGGCGACAGCGCCGCTGCGGACTGGGACTAGGATACTTGCTGCAGATGCTTG
 TGTACCTGCCCTGGCCCTGCTAAGCGCCAGTGGCACCGGCTCCGCCGCTCAAGATGATGAATTTTTCA
 CGAACTCCAGAAACCTTTCCATCTGACCCACCTGAGCCATTGCCACACTTCTCATTGAGCCCGAGGAA
 GCTTACATTGTGAAGAACAAGCCTGTGAACCTGTATTGTAAGCCAGCCCTGCCACCCAGATCTACTTCA
 AGTGCAACAGCGAGTGGGTTTCATCAGAAGGACCACGTAGTAGACGAGAGAGTAGATGAAACCTCTGGTCT
 AATTGTGAGAGAAGTGAACATTGAGATTTACGCCAGCAGGTGGAGAACTGTTTGGGCCTGAAGATTAC
 TGGTGCCAGTGTGTGGCCTGGAGCTCAGCAGGCACTACGAAGAGTCGGAAGGCATACGTGCGCATTGCGT
 ATCTGCGGAAGACATTCGAGCAGGAACCCCTGGGAAAGGAAGTGTCTTGGAGCAGGAAGCTTACTCCA
 GTGTCGGCCACCTGAAGGGATCCAGTGGCTGAGGTAGAATGGCTAAAGAATGAAGACATAATTGATCCT
 GCTGAAGATCGGAACTTTTATATTACTATCGATACAACCTGATCATCAAGCAAGCCCGACTCTCAGATA
 CAGCAAATTATACCTGTGTTGCCAAAAATATTGTTGCCAAGAGAAAAAGCACACAGCCACTGTCATCGT
 GTATGTTAATGGTGGCTGGTCCACCTGGACAGAGTGGTCTGTGTGTAACAGCCGCTGTGGGGCAGGATAT
 CAGAAAACGCACAAGAACCTGCACCAACCCAGCCCCACTCAATGGTGGGCCTTCTGTGAGGGCAGAGTG
 TGCAGAAAATAGCATGCACTACGTTATGTCCAGTGGATGGTAGGTGGACTTCATGGAGCAAATGGTCAAC
 CTGTGGGACTGAATGCACCCACTGGCGCAGGAGGAGTGTACAGCACCAGCCCCAAGAACGGGGTAAG
 GACTGTGATGGCTGGTCTCCAATCCAAGAAGTGCACCTGATGGCTGTGCATGCAGGGATTCAATTTACC
 CCATTTCAACTGAGCACAGACCCAGAATGAATATGGATTTTCTCTGCTCCTGACTCAGATGATGTGGC
 TCTCTACGTGGGGATTGTGATCGCTGTAACAGTCTGTCTGGCGATCACTGTTGTGGTGGCCCTGTTGTG
 TATCGGAAGAACCACCGTACTTTGAGTCTGACATCATTGACTCCTCAGCACTCAATGGCGGCTTTCAGC
 CTGTGAACATCAAGGCTGCCAGACAAGATCTCCTGGTGTCCCCCTGACCTCACCTCAGCTGCAGCCAT
 GTACAGGGGACCTGTCTATGCTCTGCATGATGTCTCAGACAAAATCCCAATGACCAACTCTCCAATTCTG
 GACCCACTACCCAATTGAAAATCAAAGTGTACAACAGCTCAGGTGCTGTCACTCCTCAGGATGACCTTG
 CCGAGTTCTCATCCAAGTGTACCCAGATGACCCAGTCTTGTAGAGAATGAGGCCCTTAACCTGAA
 GAACCAGAGCCTCGAAGACAGACTGACCCATCCTGCACAGCATTGGTACCTTCAACTCTTTGGGGT
 CACCTCATATTCTAATTCAGGAGTAAGCTTGTGATTCCCGCTGGGGCCATTCTCAGGGGAGAGTCT
 ATGAAATGTATGTGACTGTACACAGGAAAGAAAATATGAGGCCCCCATGGAAGACTCTCAGACCCTACT
 TACCCCTGTGGTGAAGTGTGGGCCTCTGGAGCTCTGCTGACCCGCCCTGTATCCTCACTCTGCATCAC
 TGTGCAGACCCAGCACCAGGACTGGAAGATCCAGCTCAAAAACAGGCAGTGCAGGGACAATGGGAGG
 ATGTTGTGGTGGTGGGGAGGAGAACTTCAACCCCTGTTACATTCAGCTGGATGCAGAGGCTTGCCA
 TATCCTCACAGAGAACCTCAGTACCTATGCCCTGGTGGGCGAGTCCACCACCAAGCAGCTGCCAAGCGT
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 ACCCAAGGCTCTCATTTTAAAGGCAGCATCCACAACCTGCGCCTGTCTATTGATGACATCGCCATTCC
 CTCTGGAAGAGCAAATGCTGGCTAAGTATCAGGAAATTCATTTTACCACATCTGGAGTGGCTCTCAAA
 GAAACCTCCACTGCACCTTCACTCTGGAAGACTCAGCCTAAACACAGTGAAGTGGTTTGCAAACCTCTG
 TGTGCGGCAGGTTGAAGGAGAAGGGCAGATCTTCCAGCTCAACTGTACTGTGTCAGAGGAACCTACTGGC
 ATCGACTTACCTCTCCTGGACCTGCTAGTACCATCACCACTGTACCCGACCAAGTGTCTTTCAGCATT
 CTCTCCCTATCCGGCAGAAGCTATGCAGCAGCCTGGATGCCCTCAAACAAGAGGCCATGACTGGAGGAT
 GCTGGCCATAAACTCAACCTGGACAGGTAATTGAATTACTTTGCCACCAATCGAGCCCAACTGGCGTA
 ATCCTGGATCTTTGGGAAGCACAGAAGTCCCAGATGGAACCTGAGCATGCTGGCAGCCGCTCTGGAAG
 AAATGGGAAGACATGAGACAGTGGTGTCTTGGCAGCAGAAGGACAGTAT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR231416 representing NM_001293561
 Red=Cloning site Green=Tags(s)

MRKGLRATAARCGLGLGYLLQMLVLPALALLSASGTGSAAQDDEFFHELPETFPSDPPEPLPHFLIEPEE
 AYIVKNKPVNLYCKASPATQIYFKCNSEVWHQKDHVVDERVDTSGLIVREVSIEISRQQVEELFGPEDY
 WCQCVAWSAGTTKSRKAYVRIAYLRKTFEQEPLGKEVLSLEQEVLLQCRPPEGIPVAEVEWLKNEIDI
 AEDRNFYITIDHNLIIKQARLSDTANYTCVAKNIVAKRKSTTATVIVYVNGGWSTWTEWSVCNSRCGRGY
 QKRTRTCTNPAPLNGGAFCEGQSVQKIACTTLCVPDGRWTSWSKWSTCGTECTHWRRRECTAPAPKNGGK
 DCDGLVLQSKNCTDGLCMQGFYIPISTEHRPQNEYGFSSAPDSDVALYVGIIVAVTVCLAITVVVALFV
 YRKNHRDFESDIIDSSALNGGFQPVNIKAARQDLLAVPPDLTSAAMYRGPVYALHDVSDKIPMTNSPIL
 DPLPNLIKVVYNSGAVTPQDDLAEFSSKLSQMTQSLENEALNLKNQSLARQTDPSCTAFGTFNSLGG
 HLIIPNSGVSLIPAGAIPOGRVYEMYVTVHRKENMRPPMEDSQTLLTPVVSCGPPGALLTRPVILTLHH
 CADPSTEDWKIQLKNQAVQGWEDVVVGEENFTTPCYIQLDAEACHILTENLSTYALVGQSTTKAAAKR
 LKLAIFGPLCCSSLEYSIRVYCLDDTDALKEVLQLERQMGQLLEPKALHFKGSIHNLRLSIHDIAS
 LWKSKLLAKYQEIIPFYHIWGSQRNLHCTFTLERLSLNTVELVCKLCVRQVEGEGQIFQLNCTVSEPTG
 IDLPLDPASTITVTGSAFISPLPIRQKLCSSLDAPQTRGHDWRMLAHLKLNLDRLNYFATKSSPTGV
 ILDLWEAQNFDPGNLSMLAAVLEEMGRHETVVSLLAAEGQY

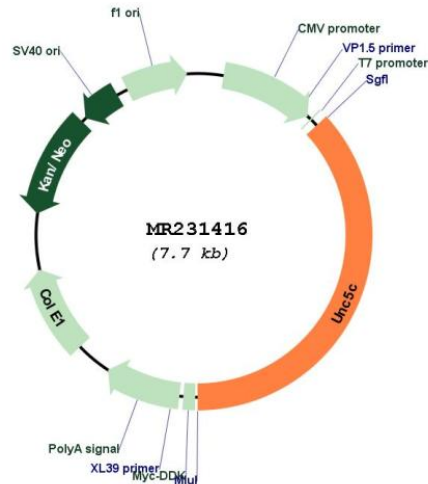
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:


ACCN: NM_001293561

ORF Size: 2850 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_001293561.1](#), [NP_001280490.1](#)

RefSeq Size: 9355 bp

RefSeq ORF: 2853 bp

Locus ID: 22253

Cytogenetics: 3 65.57 cM

MW: 105.8 kDa

Gene Summary:

Receptor for netrin required for axon guidance (PubMed:22685302, PubMed:10399920). Mediates axon repulsion of neuronal growth cones in the developing nervous system upon ligand binding (PubMed:10399920, PubMed:22685302). NTN1/Netrin-1 binding might cause dissociation of UNC5C from polymerized TUBB3 in microtubules and thereby lead to increased microtubule dynamics and axon repulsion (PubMed:28483977). Axon repulsion in growth cones may also be caused by its association with DCC that may trigger signaling for repulsion (PubMed:10399920). Might also collaborate with DSCAM in NTN1-mediated axon repulsion independently of DCC (PubMed:22685302). Also involved in corticospinal tract axon guidance independently of DCC (PubMed:9126743, PubMed:9389662, PubMed:12451134). Involved in dorsal root ganglion axon projection towards the spinal cord (By similarity). It also acts as a dependence receptor required for apoptosis induction when not associated with netrin ligand (By similarity).[UniProtKB/Swiss-Prot Function]