

Product datasheet for RC214900

NrCAM (NM_005010) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NrCAM (NM_005010) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	NRCAM
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC214900 representing NM_005010 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCAGCTTAAAATAATGCCGAAAAGAAGCGCTTATCTGCGGGCAGAGTGCCCTGATTCTCTCTCTGT
GCCAGATGATTAGTGCAGTGAAGTACCTCTTGATCTGGTACAGCCTCCAACCATCACCCAACAGTCTCC
AAAAGATTACATTATTGACCCTCGGAGAAATTTGTAATCCAGTGTGAAGCCAAAGGAAACCGCCCCCA
AGCTTTTCTGGACCCGTAATGGGACTCATTTTGACATCGATAAAGACCCTCTGGTACCATGAAGCCTG
GCACAGGAACGCTCATAATTAACATCATGAGCGAAGGAAAGCTGAGACCTATGAAGGAGTCTATCAGTG
TACAGCAAGGAACGAACGCGGAGCTGCAGTTTCTAATAACATTGTTGTCCGCCATCCAGATCACCATTG
TGGACCAAGAAAACTGAACCAATCACACTTCAAAGTGGTCACTTTAGTACTTCCCTGCAGACCCC
CAATTGGATTACCACCACCTATAATATTTGGATGGATAATTCCTTTCAAAGACTTCCACAAAGTGAGAG
AGTTTCTCAAGGTTTGAATGGGACCTTATTTTCCAATGTCTCCAGAGGACACCCGGAAGACTAT
ATCTGTTATGCTAGATTTAATCATACTCAAACCATACAGCAGAAGCAACCTATTTCTGTGAAGGTGATTT
CAGTGGATGAATTGAATGACACTATAGCTGCTAATTTGAGTGACACTGAGTTTTATGGTGCTAAATCAAG
TAGAGAGAGGCCACCAACATTTTAACTCCAGAAGGCAATGCAAGTAACAAGAGGAATTAAGAGGAAAT
GTGCTTCTCACTGGAGTGCAATGCAGAAGGACTGCCTACCCCAATTTACTGGGCAAAGGAAGATGGAA
TGCTACCCAAAAACAGGACAGTTTATAAGAACTTTGAGAAAACCTTGAGATCATTATGTTTTCAGAAGC
AGACTCTGGAAATACCAATGTATAGCAAAAAACGCATTAGGAGCCATCCACCATACCATTTCTGTTAGA
GTTAAAGCGGCTCCACTGATGATGACAGCCCTCAAAATCTTGCTGTCCCGAGGAGGATGGGACCT
TGATCTGCAGAGCTAATGGCAACCCCAACCCAGAATTAGCTGGTTAACAATGGAGTCCCAATAGAAAT
TGCCCTGATGACCCAGCAGAAAAATAGATGGCGATACCATTATTTTTCAAATGTTCAAGAAAAGATCA
AGTGCAGTCTATCAGTGAATGCCTCTAATGAATATGGATATTTACTGGCAAACGCATTTGTAATGTGC
TGGCTGAGCCACCACGAATCCTCACACCTGCAAAACACACTTACCAGGTCATTGCAAAACAGGCCTGCTTT
ACTAGACTGTGCCTTCTTTGGGTCCTCTCCCAACCATCGAGTGGTTTAAAGGAGCTAAAGGAAGTGCT
CTTCATGAAGATTTTATGTTTTACATGAAAATGGAACCTTTGAAATTCCTGTGGCCAAAAAGGACAGTA
CAGGAACTTATACGTGTGTTGCAAGGAATAAATTAGGGATGGCGAAGAATGAAGTCACTTAGAAATCAA
AGATCCTACATGGATCGTTAAACAGCCGAATATGCAGTTGTGCAAGAGGGAGCATGGTGTCTTTGAA



[View online »](#)

TGCAAAGTGAACATGATCACACCTTATCCCTCACTGTCCTGTGGCTGAAGGACAACAGGGAAGTCCCA
 GTGATGAAAGGTTCACTGTTGACAAGGATCATCTAGTGGTAGCTGATGTCAGTGACGATGACAGCGGGAC
 CTACACGTGTGTGGCCAACCACTCTGGACAGCGTCTCCGCCAGCGCTGTGCTTAGCGTTGTTGATGTC
 CCAATCTCCCTTTGACTTAGAACTGACAGATCAACTTGACAAAAGTGTTCAGCTGTCATGGACCCAG
 GCGATGACAACAATAGCCCCATTACAAAATTCATCATCGAATATGAAGATGCAATGCACAAGCCAGGGCT
 GTGGCACCACAAAAGTGAAGTTCTGGAACACAGACCACAGCCAGCTGAAGCTGTCTCCTTACGTGAAC
 TACTGCTCCCGCTGATGGCAGTGAACAGCATTTGGGAAGAGCTTGCCAGCGAGGCGTCTGAGCAATTT
 TGACGAAAAGCCTCAGAACCAGATAAAAACCCACAGCTGTGGAAGGACTGGGATCAGAGCCTGATAATTT
 GGTGATTACGTGGAAGCCCTTGAATGGTTTCTAATCTAATGGGCCAGGCCTTCAGTACAAAAGTTAGCTGG
 CGCCAGAAAAGATGGTGATGATGAATGGACATCTGTGGTTGTGGCAAATGTATCCAAATATATTGTCTCAG
 GCACGCCAACCTTTGTTCCATACCTGATCAAAGTTCAGGCCCTGAATGACATGGGGTTTGCCCCGAGCC
 AGCTGTAGTCATGGGACATTCTGGAGAAGACCTCCCAATGGTGGCTCTGGGAACGTGCGTGTGAATGTG
 GTGAACAGTACCTTAGCCGAGGTGCACTGGGACCCAGTACCTCTGAAAAGCATCCGAGGACACCTACAAG
 GCTATCGGATTTACTATTGGAAGACCCAGAGTTTCTAAAAGAAACAGACGTCACATTGAGAAAAAGAT
 CCTCACCTTCCAAGGCAGCAAGACTCATGGCATGTTGCCGGGGCTAGAGCCCTTTAGCCACTACACTG
 AATGTCCGAGTGTCAATGGGAAAAGGGAGGGCCAGCCAGCCCTGACAGAGTCTTTAATACTCCAGAAG
 GAGTCCCCAGTGCTCCCTCGTCTTTGAAGATTGTGAATCCAACACTGGACTCTCTCACTTTGGAATGGGA
 TCCACCGAGCCACCCGAATGGCATTGACAGAGTACACCTTAAAGTATCAGCCAATTAACAGCACACAT
 GAATTAGGCCCTCTGGTAGATTTGAAAATTCCTGCCAACAAAGACACGGTGGACTTTAAAAATTTAAATT
 TCAGCACTCGATAAAGTTTTATTTCTATGCACAAACATCAGCAGGATCAGGAAGTCAAATTACAGAGGA
 AGCAGTAAACACTGTGGATGAAGCGATGGCAAGCCGGCAGGTGGATATTGCAACTCAGGGCTGGTTCATT
 GGTCTGATGTGTGCTGTGCTCTCCTTATCTTAATTTTGTGATTGTTTGCTTCATCAGAAGAAAACAGG
 TTGGTAAATATCCAGTTAAAGAAAAGGAAGATGCCCATGCTGACCCTGAAATCCAGCCTATGAAGGAAGA
 TGATGGGACATTTGGAGAATACAGTGTATGCAGAAGACCACAAGCCTTTGAAAAAAGGAAGTCAAGTCTCT
 TCAGACAGGACTGTGAAAAAGAAGATAGTGACGACAGCCTAGTTGACTATGGAGAGGGGTTAATGGCC
 AGTTCAATGAGGATGGCTCCTTTATTGGACAATACAGTGGTAAGAAAGAGAAAAGACCGGCTGAAGGAAA
 CGAAAAGCTCAGAGGCACCTTCTCTGTCAACGCCATGAATTCCTTTGTT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC214900 representing NM_005010
 Red=Cloning site Green=Tags(s)

MQLKIMPKKKRLSAGRVPLILFLCQMISALEVPLDLVQPPTITQQSPKDYIIDPRENIVIQCEAKGKPPP
 SFSWTRNGTHFDIDKDLVMTKPGTGTLIINIMSEGKAETYEYVYQCTARNERGAAVSNNIVRPSRSL
 WTKEKLEPITLQSGQSLVPCRPPIGLPPPIIFWMDNSFQRLPQSERSVQGLNGDLYFSNVLPEdTREDY
 ICYARFNHTQTIQQKQPI SVKVISVDELNDTIAANLSDTEFYGAKSSRERPPFTLPEGNASNKEELRGN
 VLSLECIAEGLPTPIIYWAKEDGMLPKNRTVYKNFEKTLQIIHVSEADSGNYQCI AKNALGAIHHTISVR
 YKAAAPYWITAPQNLVLSPEGDGLICRANGNPKPRISWL TNGVPIEIA PDDPSRKIDGDTIIFSNVQERS
 SAVYQCNASNEYGYLLANAFVNVLAEPRIILTPANTLYQVIANRPAALDCAFFGSPPLTIEWFKGAKGSA
 LHEDIYVLHENGTLIPVAQKDSGTYTVCARNKLGMAKNEVHLEIKDPTWIVKQPEYAVVQRGSMVSFE
 CKVKHDHTLSLTVLWLDNRELPSDERFTVDKDHLLVADVSDDDSGTYTCVANTLDSVSASAVLSVVDV
 PNPPFDLELTDQLDKSVQLSWTPGDDNNSPITKFIIEYEDAMHKPGLWHHQTEVSGTQTTAQLKLSYVNV
 YSFRVMVAVNSIGKSLPSEASEQYLTKASEPDKNPTAVEGLGSEPDNLVITWKPLNGFESNGPGLQYKVS
 RQKDGDEWTSVVVANVSKYIVSGTPTFPYLIKVQALNDMGFAPEPAVVMGHSGEDLPMVAPGNVVRNV
 VNSTLAEVHWDVPVPLKSIRGHLQGYRIYYWKTQSSSKRNRRIEKKILTFQGSKTHGMLPGLPEFSHYTL
 NVRVNVNGKGEPA SPDRVFNTPEGVPSAPSSLKIVNPTLDSL TLEWDPSPHPNGILT EYTLKYQPINSTH
 ELGPLVDLKIPANKTRWTLKNLNFSTRYKFFYQAQTSAGSGSQITEEAVTTVDEAMASRQVDIATQGWFI
 GLMCAVALLILILLIVCFIRRNKGGKYPVKEKEDAHADPEIQPMKEDDGTGGEYSDAEDHKPLKKGSRTP
 SDRTVKKEDSDDSLVDYGEVNGQFNEDGSFIGQYSGKKEKEPAEGNESSEAPSPVAMNSFV

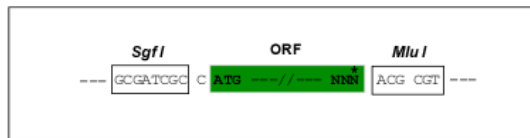
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

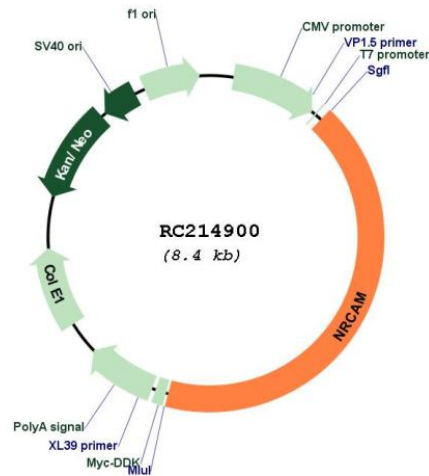
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:


ACCN: NM_005010

ORF Size: 3549 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_005010.4](#), [NP_005001.3](#)

RefSeq Size: 6322 bp

RefSeq ORF: 3552 bp

Locus ID: 4897

UniProt ID: [Q92823](#)

Cytogenetics:	7q31.1
Domains:	ig, IGc2, IG, FN3
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Cell adhesion molecules (CAMs)
MW:	131 kDa
Gene Summary:	<p>Cell adhesion molecules (CAMs) are members of the immunoglobulin superfamily. This gene encodes a neuronal cell adhesion molecule with multiple immunoglobulin-like C2-type domains and fibronectin type-III domains. This ankyrin-binding protein is involved in neuron-neuron adhesion and promotes directional signaling during axonal cone growth. This gene is also expressed in non-neural tissues and may play a general role in cell-cell communication via signaling from its intracellular domain to the actin cytoskeleton during directional cell migration. Allelic variants of this gene have been associated with autism and addiction vulnerability. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Jul 2008]</p>