

Product datasheet for MC223870

Nrcam (NM_001146031) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Nrcam (NM_001146031) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Nrcam
Synonyms:	Bravo; C030017F07Rik; C130076O07Rik; mKIAA0343
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>MC223870 representing NM_001146031 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCAGCTTAAAATAATGCCGAAGAAGAAGCACTTATCTGCAGGGCGGAGTGCCCTGATTCTCTTCTGT
GCCAGATGATCAGCGCGCTGGATGTTCTCTCGATCTGGTACAACCTCCAACCATCACTCAACAGTCACC
AAAAGACTACATCATTGACCCTCGGAGAATATTGTAATCCAGTGTGAGGCCAAAGGGAAACCTCCCCA
AGCTTTTCTGGACTCGTAATGGAACCTACTTTGACATAGACAAGGACCTCTGGTCACCATGAAGCCTG
GCTCAGGAACCTTGTCATCAACATCATGAGTGAGGGGAAGGCAGAGACCTATGAAGGAGTCTACCAGTG
CACTGCAAGGAACGAGCGTGGAGCTGCCGTCTCCAATAACATTGTTGTCCGCCATCTAGGTCACCTTG
TGGACCAAGGAAAGACTTGAACCTATAGTACTCCAGAATGGGCAGTCATTAGTACTTCCATGTAGGCCTC
CGATTGGATTACCTCCGGCCATAATATTTGGATGGATAATTCTTTTCCAGAGACTCCACAGAGTGAGCG
GGTTTCCCAAGGCCTAAATGGAGACCTTACTTCTCCAATGTCTCCAGAGGACACCCGTGAGGACTAT
ATCTGCTATGCCAGATTTAATCACACTCAAACCATCCAGCAGAAGCAGCCTATTTCTTTGAAGTGATTT
CAGTGGATGAATTGAATGACACTATAGCTGCTAATTTGAGTGACACTGAGTTTTATGGTGCTAAATCTAG
TAAAGAGAGGCCCAAGTCTTAACTCCAGAGGGCAATGAAAGCCACAAGAGGAATTAAGAGGAAAC
GTGCTTTCGCTGGAGTGATTGCGGAAGGCCTACTACTCCAATTTACTGGATCAAAGAAGACGGAA
TGCTTCCCGCAACCGGACATTTTATCGGAACTTTAAGAAAACCTGCAGATCACTCATGTTTCCGAAGC
CGACTCTGAAATATCAGTGATAGCAAAAAACGCATTAGGAGCCGTCCATCACACATTTCTGTCACT
GTTAAAGCGGCTCCCTACTGGATCGTGGCACCTCAAACCTCGTGCTTTCCCGGGAGAGAATGGGACCC
TCATCTGCAGAGTAATGGCAACCCGAAACCCAGAATTAGCTGGTTAACAATGGAGTCCCAATAGAAAT
TGCTCTCGATGACCCAGCAGAAAAATAGATGGCGATACCATTATTTTTCAAATGTTCAAGAAAGCTCA
AGTGCGGTTTATCAGTGAATGCCTCTAACAAATATGGATATTTACTAGCAAATGCATTTGTAATGTTT
TCGCTGAACACCTCGGATTCTCACATCAGCAAACACACTGTACCAGGTCATTGCAAACAGGCCTGCTTT
GCTAGATTGTGCCTTCTTTGGATCTCCTATGCCTACCATTGAGTGGTTTAAAGGCACTAAAGGAAGCGCT
CTTCATGAAGACATTTATGTTTTGCATGATAATGGAACATTAGAAATTCCTGGGCCAAAAGGATAGTA



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CAGGGACGTACTTGTGTCGCACGGAATAAACTAGGGATGGCAAAGAATGAAGTTCACCTTGAAAATCAA
 AGATCCAACCAGGATCATTAAACAACCTGAGTATGCAGTCGTCCAGAGGGGGAGCAAAGGTGTCCTTTGAA
 TGCAGAGTGAAACATGACCACACCTTAATCCCCACCATTATGTGGCTGAAGGACAATGGAGAGCTGCCCA
 ATGATGAAAGGTTCTCCACTGACAAGGATCATCTGGTGGTATCTGATGTAAGGATGACGATGGCGGAAC
 CTACACGTGTACGGCCAACAACGCTGGACAGTGCTTCGGCCAGCGCTGTGCTCAGGGTTGTCGATGTC
 CCGAATCCTCCCTTTGATTTAGAATTGACCAATCAACTTGACAAAAGTGTTCAGCTGACATGGACCCAG
 GCGACGACAACAATAGCCCATTAACAAAATTCATCATTGAGTATGAAGATGCAATGCATGATGCAGGGG
 GTGGCGCCACCAGGCTGAAGTTTCTGGAACACAGACCACAGCCCAACTGAAGCTGTCTCCCTATGTGAAC
 TACTCCTTCCGTGTCATGGCAGAGAACAGCATTGGGAGAAGTATGCCGAGCGAGGCATCCGAGCAGTATC
 TTACAAAAGCCGAGAACCAGATCAGAATCCCATGGCTGTGGAAGGACTAGGGACAGAGCCGGACAACCT
 GGTGATTACATGGAAGCCCTGAATGGTTTTCAATCGAATGGGCCTGGCCTCCAGTACAAAAGTGAAGTGG
 CGCCAGAAAGATGGTACGATGAGTGGACGTCTGTGGTTGTGGCCAATGTATCCAAATACATTGTTTCTG
 GCACACCAACCTTTGTCCTACCTGATAAAAAGTTCAGCTCTGAATGATGTGGGGTTTGCACCAGAGCC
 AGCTGCAGTCATGGGGCATTCTGGAGAAGACCTCCAATGGTGGCTCCTGGAAAATGTTCCGCTCAGCGT
 GTGAACAGTACGCTGGCAGAGGTGCACTGGGACCCAGTTCCTCCAAGAGTGTCCGAGGACACTTACAAG
 GCTACCGATTTACTACTGGAAGACCCAGAGCTCCTCTAAAAGAAAACAGGCGCCACATTGAGAAGAAGAT
 CCTCACCTTCCAGGGCACAAGACTCACGGCATGCTGCCAGGGCTGCAGCCATACAGTCACTATGCCCTC
 AACGTCGAGTGGTCAACGGGAAAGGGGAGGGCCAGCCAGCACGGACAGAGGCTTCCATACACCGGAGG
 GAGTCCCTAGTGTCCCTCATCTTTGAAAATTGTTAATCCCACTGGACTCCCTCACTTTGGAATGGGA
 CCCCCAAGCCACCAATGGCATCCTGACTGAGTACATCTTACAATATCAGCCAATTAACAGCACACAT
 GAGCTAGGCCCTCTGGTAGATTTAAAAATTCCTGCCAACAAGACCCGCTGGACTTTGAAAAATTTAAAT
 TCAGCACTCGGTACAAGTCTATTTCTATGCACAGACATCAGTGGGGCCAGGCAGTCAGATCACAGAGGA
 AGCGATAACGACTGTGGACGAAGTAAGAAGGCAATGGCAAGCCGGAAGTGGATATCGGACCCAAAGGC
 TGGTTCATAGGTCTAATGTGCGCTGTTGCTCCTCATCTTAATTTTGCTGATTGTTGCTTCATCAGAA
 GAAACAAAGTGGTAAATACCCAGTTAAAAGAAAAGGAGGATGCTCATGCAGACCTGAAATCCAGCCAT
 GAAGGAAGATGATGGGACGTTTGGAGAATACAGTATGCAGAAGATCACAAAGCCTTTGAAAAAGGAAGT
 CGAACACCTTCAGACAGGACTGTGAAAAAGAAGATAGCGATGATAGTCTGGTTGACTATGGAGAGGGGG
 TGAACGGCAATCAACGAGGATGGCTCCTTTATTGGCCAATACAGTGGTAAGAAAGAGAAAGGCCAGC
 AGAGGGAAATGAAAGCTCAGAGGCCCTTCTCCTGTCAACGCAATGAACCTTTGTTTAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM_001146031
- Insert Size:** 3561 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- 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_001146031.1](#), [NP_001139503.1](#)

RefSeq Size: 7362 bp

RefSeq ORF: 3561 bp

Locus ID: 319504

UniProt ID: [Q810U4](#)

Cytogenetics: 12 20.71 cM

Gene Summary: Cell adhesion protein that is required for normal responses to cell-cell contacts in brain and in the peripheral nervous system. Plays a role in neurite outgrowth in response to contactin binding (PubMed:11564762). Plays a role in mediating cell-cell contacts between Schwann cells and axons (PubMed:20188654). Plays a role in the formation and maintenance of the nodes of Ranvier on myelinated axons. Nodes of Ranvier contain clustered sodium channels that are crucial for the saltatory propagation of action potentials along myelinated axons. During development, nodes of Ranvier are formed by the fusion of two heminodes. Required for normal clustering of sodium channels at heminodes; not required for the formation of mature nodes with normal sodium channel clusters (PubMed:14602817, PubMed:20188654). Required, together with GLDN, for maintaining NFASC and sodium channel clusters at mature nodes of Ranvier (PubMed:24719088).[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (2) lacks an alternate in-frame exon in the mid coding region and two alternate in-frame exons in the 3' coding region, and uses an alternate in-frame splice site in the 3' coding region, compared to variant 1. The resulting isoform (2) is shorter than isoform 1. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.