

Product datasheet for **MG219512**

Nrcam (NM_001146031) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Nrcam (NM_001146031) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Nrcam
Synonyms:	Bravo; C030017F07Rik; C130076O07Rik; mKIAA0343
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG219512 representing NM_001146031 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCAGCTTAAAATAATGCCGAAGAAGAAGCACTTATCTGCAGGCGGAGTGCCCTGATTCTTCTCTGT
GCCAGATGATCAGCGCGCTGGATGTTCTCTCGATCTGGTACAACCTCCAACCATCACTCAACAGTCACC
AAAAGACTACATCATTGACCCTCGGAGAATATTGTAATCCAGTGTGAGGCCAAAGGAAACCTCCCCA
AGCTTTTCTGGACTCGTAATGGAACCTCTTACATAGACAAGGACCCTCTGGTACCATGAAGCCTG
GCTCAGGAACCCTTGTCATCAACATCATGAGTGAGGGGAAGGCAGAGACCTATGAAGGAGTCTACCAGT
CACTGCAAGGAACGAGCGTGGAGCTGCCGCTCCAATAACATTGTTGTCGCCCATCTAGGTCACCCCTG
TGGACCAAGGAAAGACTTGAACCTATAGTACTCCAGAATGGGCAGTCATTAGTACTTCCATGTAGGCCTC
CGATTGGATTACCTCCGGCCATAATATTTTGGATGGATAATTCCTTTCCAGAGACTTCCACAGAGTGAGCG
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CTTCATGAAGACATTTATGTTTTGCATGATAATGGAACATTAGAAATTCCTGGCCCAAAAGGATAGTA
CAGGGACGTATACTTGTGTGCGACGGAATAAAGTAGGGATGGCAAAGAATGAAGTTCACCTTGAAATCAA
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ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

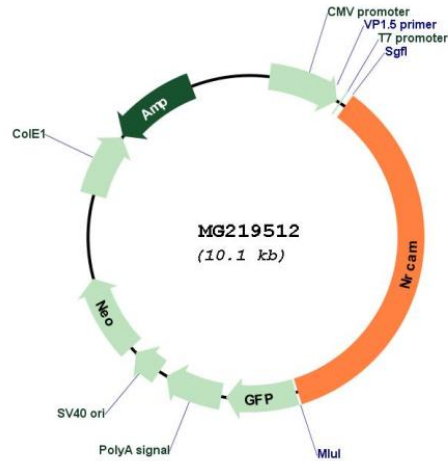
Protein Sequence: >MG219512 representing NM_001146031
 Red=Cloning site Green=Tags(s)

MQLKIMPKKKHL SAGGVPLILFLCQMISALDVPLDLVQPPTITQQSPKDYIIDPRENIVIQCEAKGKPPP
 SFSWTRNGTHFDIDKDLVTMPGSGTLVINIMSEGKAETYEYVYQCTARNERGAAVSNNIVVRSRPL
 WTKERLEPIVLQNGQSLVLP CRPPIGLPPAII FWM DNSFQRLPQSERSVQGLNGDLYFSNVLPEDTREDY
 ICYARFNHTQT IQQKQPI SLKVISVDELNDTIAANLSDTEFYGAKSSKERPPTFLTPEGNESHKEELRGN
 VLSLECIAEGLPTPIIYWIKEGMLPANRTFYRNFKKTQITHVSEADSGNYQCI AKNALGAVHHTISVT
 VKAAPYWI VAPQNLV LSPGENGLICRANGNPKPRISWL TNGVPIEIALDDPSRKIDGDTIIFSNVQESS
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 LHEDIYVLHDNGTLEIPVAQKDSTGYTVCARNKLGMAKNEVHLEIKDPTRIIKQPEYAVVQRGSKVSFE
 CRVKHDHTLIPTIMWLKDN GELPN DERFSTDKDHLVVDV KDDGGTYTCTANTLDSASASAVLRVVDV
 PNPPFDLELTNQLDKSVQLTWTPGDDNNSPITKFIIEYEDAMHDAGLWRHQAEVSGTQTTAQLKLSYVNV
 YSFRVMAENSIGR SMPSEASEQYLTKAAEPDQNPMAVEGLGTEPDNLVITWKPLNGFQSNGLQYKVS
 RQKDGDDDEWTSVVVANVSKYIVSGTPTFPYLIK VQALNDVGF APEPAAVMGHSGEDLPMVAPGNVRVSV
 VNSTLAEVHWDPPPKSVRGHLQGYRIYYWKTQSSSKRNRRIEKKILTFQGTKTHGMLPGLQPYSHYAL
 NVRVVNGKGEPASTRGFHTPEGVPSAPSSKIVNPTLDSLTL EWDP PSHPNGILTEYILQYQPINSTH
 ELGPLVDLKIPANKTRWTLK NLFSTRYKFYFYAQT SVGPGSQITEEAITTVDEGKKAMASRQVDIATQG
 WFI GLMCAVALLILILLIVCFIRRNKGGKYPVKEKEDAHADPEIQPMKEDDGTGFEYSDAEDHKPLKKG
 RTPSDRTVKKEDSDDSLVDYGEVNGQFNEDGSF IGQYSGKKEKEPAEGNESSEAPSPV NAMNSFV

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI
 Cloning Scheme:



Plasmid Map:


ACCN: NM_001146031

ORF Size: 3558 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_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]