

## Product datasheet for SC108536

### NrCAM (NM\_005010) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	NrCAM (NM_005010) Human Untagged Clone
Tag:	Tag Free
Symbol:	NRCAM
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_005010, the custom clone sequence may differ by one or more nucleotides

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ATGCAGCTTAAAATAATGCCGAAAAAGAAGCGCTTATCTGCGGGCAGAGTGCCCTGATTCTTCTCTGT
GCCAGATGATTAGTGCAGTGAAGTACCTCTTGATCTGGTACAGCCTCCAACCATCACCAACAGTCTCC
AAAAGATTACATTATTGACCCTCGGGAGAATATTGTAATCCAGTGTGAAGCCAAAGGAAACCGCCCCCA
AGCTTTTCTGGACCCGTAATGGGACTCATTTGACATCGATAAAGACCCTCTGGTCACCATGAAGCCTG
GCACAGGAACGCTCATAATTAACATCATGAGCGAAGGGAAAGCTGAGACCTATGAAGGAGTCTATCAGTG
TACAGCAAGGAACGAACGCGGAGCTGCAGTTTCTAATAACATTGTTGTCCGCCCATCCAGATCACCATTG
TGGACCAAGAAAAAAGTGAACCAATCACACTCAAAGTGGTCAGTCTTTAGTACTTCCCTGCAGACCCC
CAATTGGATTACCACCACCTATAATATTTTGGATGGATAAATCCTTTCAAAGACTTCCACAAAGTGAGAG
AGTTTCTCAAGTTTGAATGGGGACCTTTATTTTCCAATGTCCTCCAGAGGACACCCGCGAAGACTAT
ATCTGTTATGCTAGATTTAATCATACTCAAACCATACAGCAGAAGCAACCTATTTCTGTGAAGGTGATTT
CAGTGGATGAATTGAATGACACTATAGCTGCTAATTTGAGTGACACTGAGTTTTATGGTCTAAATCAAG
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GTGCTTCTACTGGAGTGCATTGCAGAAGGACTGCCTACCCCAATTATTTACTGGGCAAAGGAAGATGGAA
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TGCCCTGATGACCCAGCAGAAAAATAGATGGCGATACCATTATTTTTCAAATGTTCAAGAAAGATCA
AGTGCAGTCTATCAGTGAATGCCTCTAATGAATATGGATATTTACTGGCAAACGCATTTGTAATGTGC
TGGCTGAGCCACCACGAATCCTCACACCTGCAAACACACTCTACCAGTTCATTGCAAACAGGCCTGCTTT
ACTAGACTGTGCCTTCTTTGGGTCTCCTCTCCCAACCATCGAGTGGTTTAAAGGAGCTAAAGGAAGTGTCT
CTTCATGAAGATATTTATGTTTTACATGAAAATGGAACCTTTGAAATCCTGTGGCCAAAAAGGACAGTA
CAGGAACCTTATACGTGTGTTGCAAGGAATAAATAGGGATGGCGAAGAATGAAGTTCATCTAGAAAATCAA
AGATCCTACATGGATCGTTAAACAGCCCGAATATGCAGTTGTGCAAAAGAGGGAGCATGGTGTCTTTGAA
TGCAAAGTGAAACATGATCACACCTTATCCCTCACTGTCTGTGGCTGAAGGACAACAGGAACTGCCCA

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GTGATGAAAGGTTCACTGTTGACAAGGATCATCTAGTGGTAGCTGATGTGTCAGTGACGATGACAGCGGGAC
CTACACGTGTGTGGCCAACCACTCTGGACAGCGTCTCCGCCAGCGCTGTGCTTAGCGTTGTTGATGTC
CCAAATCTCCCTTTGACTTAGAACTGACAGATCAACTTGACAAAAGTGTTCAGCTGTATGGACCCAG
GCGATGACAACAATAGCCCCATTACAAAATTCATCATCGAATATGAAGATGCAATGCACAAGCCAGGGCT
GTGGCACCACAACTGAAGTTTCTGGAACACAGACCACAGCCAGCTGAAGCTGTCTCCTTACGTGAAC
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GGTGATTACGTGGAAGCCCTTGAATGGTTTCGAATCTAATGGGCCAGGCCTTCAGTACAAAAGTTAGCTGG
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GCTATCGGATTTACTATTGGAAGACCCAGAGTTTCTAAAGAAACAGACGTCACATTGAGAAAAAGAT
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GAGTCCCCAGTGCCTCCGCTTTGAAGATTGGAATCCAACACTGGACTCTCTCACTTTGGAATGGGA
TCCACCGAGCCACCCGAATGGCATTGACAGAGTACACCTTAAAGTATCAGCCAATTAACAGCACACAT
GAATTAGGCCCTCTGGTAGATTTGAAAATTCCTGCCAACAAAGACACGGTGGACTTTAAAAATTTAAATT
TCAGCACTCGATATAAGTTTTATTTCTATGCACAAACATCAGCAGGATCAGGAAGTCAAATTACAGAGGA
AGCAGTAACAACGTGGATGAAGCGATGGCAAGCCGGCAGGTGGATATTGCAACTCAGGGCTGGTTCATT
GGTCTGATGTGTGCTGTTGCTCTCCTTATCTTAAATTTGCTGATTGTTTGCTTCATCAGAAGAAACAAGG
TGATGGGACATTTGAGAATACAGTATGCAGAAGACCACAAGCCTTTGAAAAAGGAAGTGAAGGAAAG
TCAGACAGGACTGTGAAAAAAGAAGATAGTGACGACAGCCTAGTTGACTATGGAGAAGGGTTAATGGCC
AGTTCAATGAGGATGGCTCCTTTATTGGACAATACAGTGGTAAGAAGAGAAAGGCCGGCTGAAGGAAA
CGAAAGCTCAGAGGCACCTTCTCTGTCAACGCCATGAATTCCTTTGTTAA
    
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**5' Read Nucleotide Sequence:**

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>OriGene 5' read for NM_005010 unedited
NGGGTAAATTTTTGATATTTGTATACGACTTACTATAGGCGGCCGCAATTCGCACGAG
GCTTCGTGAGAACGGAGGACACCGCGGTCCAGGGTCCGGCAGTCCGCCAGAGCTG
AGCGGAGGGCGCGCGGAGAACGAATCTTTGTGACATTCTCTCAGCATTCTTTATCC
CCTGTTTGCTGAAGACTTCGACAAAAGCTGGTCTTAGCTGTTGGCATTCTCCTGAGAAAA
GGATAGCTTCAGAAATCAGAAAAACATTTGGGAGGTGTCTAGCCAGTGGACCTTCTGAA
GAGCAATGCTAAGAAGACGTTTGGTTTAAAGAATTAAGGAAGAACAACCTTAAGAGCTT
CTTCAAAGTTTCCCGCATGAAAATTACTTAAACGTTGCACACAACGTTTCACAAAATCTT
TTGTGAAAGAAGAAAAGGAATTCAGTGTGTGAGTCTCAGCAGGAGTTAAGCTAATGCAGC
TTAAAATAATGGCCGAANAAGAAGCGCTTATCTGGCGGCAGAGTCCCCCTGATTCTTTC
CTGTGCCAGATGATTAGTGCACCTGGAAGTACCTTTGATCCAAAACCTTCTGAAGACTTG
GTACAGGCTTCAACCATACCCAACAGTCTTCAAAGAATACATTATTGACCCCTCGGGAGA
ATATTGGGATCCAGTGTGAAGCCAGGGAAACCGGCCCAAGCTTTTCTGGGCCGAT
GGGACTCAATTTGACATCGATAAGACCCTCTGGTACATGAAACTGGGGCACGAACGCTC
TTATTTACATCTGGCCAAAGGGAAGCTTAGACCCTTGAAGGTCTTTACGTACCACAAG
GACCAACCCGCACTGCCGTTCTTATACACTGTGTGCCCTTCA
    
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<b>3' Read Nucleotide Sequence:</b>	>OriGene 3' read for NM_005010 unedited ACCGCGGGCCGCAATCTANAGTCGAGTTT TTTAACTTTTAAAACCACATTTAATTTTTAATACCAAATCTGTTGCACTATTACAAAAGT GACCCITTCATGCACAGATAAATTTTCGCATTTACCAGTATGGAAAAGGAAAAATGTAGT TTTATTGTTCTCCAAAATATTGGCAAATTTAAAGTAACITTTAATCTTTGGGCTCTCTG ATGCCAAGGCAACCTGTTTTGTCTTTTATATTTTCAAAAAACAGGGGATCTGTGAAA AATGAATTTAGACCTGAAAGTTTTTAGGGCCATCTTTACCTGGGATTACTTTAAATTA TGCTTTACCTACATATATCAAACATGCCAGTTACTAGGCTACTGTGCCCATAGGCAA AGCTCTGAAGATTTTCGAAAAATCTGCTGTCAATACGTAAAAAGTTCACTATTTTCAG TTTCACAGCAAAAAGGTGGGGGAGGGGGAACCCAATAGATATTTAAGTAGATGCTTT CCAATCCCATTCACTGCATTAATTAGCTTACCTCTTATACAGTACAACATAAACATTGCA TGTTTTATTGTATGTAACACCTATAAGCATATAGCATCTACATTTAAGTGTATTTACAA ATTCAACAAAATATCTACATATAAAAAGCTTTACTTAAAATTAACCTTGATGCAAGTTAT GAGAAACCAATTTATTGGCAAATGAAACTGAGCATTCCTTCAACCATAGGTTGTTATAGA TTTTCATATTTTGAAGGGGACCCATTGATAGATTTGGTTATGATAACCATNGATATATA TTACTTTTTAAACTGCAATGGTATCCCTTGGACCGGTGCCTCTTTAGCACTTGCTGTA TTCTTAAATTCTGAAAGGATCCCATACAATTTGCATCACCGTGTAAAGGGG
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_005010
<b>Insert Size:</b>	6450 bp
<b>OTI Disclaimer:</b>	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).
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_005010.2</a> , <a href="#">NP_005001.2</a>
<b>RefSeq Size:</b>	6322 bp
<b>RefSeq ORF:</b>	3552 bp
<b>Locus ID:</b>	4897
<b>UniProt ID:</b>	<a href="#">Q92823</a>
<b>Cytogenetics:</b>	7q31.1
<b>Domains:</b>	ig, IGc2, IG, FN3
<b>Protein Families:</b>	Druggable Genome, Transmembrane

**Protein Pathways:** Cell adhesion molecules (CAMs)

**Gene Summary:** 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]

Transcript Variant: This variant (2) differs in the 5' UTR and lacks five in-frame exons in the coding region, compared to variant 1. The encoded protein (isoform B) is shorter than isoform A.