

Product datasheet for MC223772

Sorcs2 (NM_030889) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Sorcs2 (NM_030889) Mouse Untagged Clone
Tag: Tag Free
Symbol: Sorcs2
Synonyms: mKIAA1329; N28137
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >MC223772 representing NM_030889
 Red=Cloning site Blue=ORF Orange=Stop codon

CTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCCGGCGC
 GCC

ATGGCGCACCGGGGACCCCGAGCGCCCCGAAGCGTCTGGCCCTACTGCGCCGGACCGGAGCTTTCAGG
 CTCTGCTGCCCGCTGCTGGCCACGTTCTGGCCGCTGCTGCTGCTGCTGGTCTGGTGGCTGCCTG
 CGGAGCGATGGGGCGCTCCCCAGCCCGGGCGCCAGGGTCCCGGTGTGCAGATCACTAGGCTGCTGCC
 CGGGGACGCACGGAGTCCGGCGATCGCAAAGATCCACAGGCACGAGAATCAGAACCAGCGTCCCGGGTC
 TCGGTCCGGGTTCTGCTTCGGGTCCCAGCACCGATGGCGCCCCAGCTCCGGGCAAGGGGCGCAGGGCTCG
 GGCGGTGCCGGTGGCCGGTGC GGCTTCGGCTTCGCGCGCACAGGTCTCGCTCATCAGCACGTCGTTTCGTG
 CTCAAGGGAGACGCGACGCACAACCAGGCGATGGTACACTGGACAGGAGAGAACAGCAGCGTCATCTTGA
 TCCTGACAAAGTACTACCATGCAGACATGGGCAAGGTTCTGAAAAGTTCTCTGTGGAGGTCCTCAGATTT
 TGGGACAACTACACCAAGCTTACTCTCCAGCCTGGTGTCACTGTGATGACAATTCTATATCTGC
 CCAGCTAACAAAAGGAAGATCATCTGGTGGTACATCCCTCGGTGACCGGGAACAGGCCTCTTCCACCC
 GCACTGATGAGGGCGCCACGTTCCAGAAGTATCCTGTCCCCTTCTTGTGGAGATGCTCCTCTTCCACCC
 GAAGGAGGAGGACAAGGTGCTGGCCTACACCAAGGACAGCAAGCTGTATGTGTCATCGACCTGGGAAAG
 AAGTGGACAATTCTGCAGGAACGGGTGACCAAGGACCAGTGTTCTGGGCTGTGTCTGGGTGGATGACG
 ACCCAAATTGGTCCACGTGGAAGCTCAGGACCTCAGTGGAGGCTATCGTACTACACGTGTCTGATCTA
 CAACTGCTCAGCCAGCCACACATAGCACCTTCTCCGGCCCCATTGACCGCGGGTCCCTGACCGTGACG
 GATGAGTACATCTTTTGAAGGCAACATCAACAAACCGAACCAAGTACTATGTCTCTATCGCCGAAGTG
 ACTTTGCTCTGATGAAGCTGCCAAGTATGCCCTGCCAAGGACCTACAGATCATCAGCACGGATGAGCA
 GCAGGTGTTTGTGGCGTACAGGAGTGAACAGGTAGACACCTACAACCTGTACCAGTCAGACCTCGCT
 GGGGTTTCGCTATCCCTGGTGTGGAGAATGTGCGCAGCTCGAGGCAAGCCGAGGAGAACGTGGTATCG
 ACATCCTTGAGGTGAGGGGTGAAGGGAGTCTTCTTGGCAAACAGAAAGTGGATGGCAAAGGTGACCAC
 AGTCATAACCTACAACAAGGGCCGTGACTGGGATTACCTGAGGCCACCCAGCACCATGAATGGGAAG
 CCCACCAACTGCCAGCCCGGACTGTTACCTGCACCTGCACTTGGGTTGGGCGAGACAACCCCTATGTGT



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CAGGCACGGTACACACCAAGGACTGCCCTGGTCTCATCATGGGTGCAGGTAACCTGGGCTCACAGCT
 GGTGGAGTATAAAGAGGAGATGTACATCACATCTGACTGCGGGCACACCTGGAGGCAGGTCTTTGAGGAA
 GAGCACCATGTGTGTACCTGGACCACGGTGGTGTATTGCCGCCATCAAGGACACCTCCATCCCCTGA
 AGATCCTCAAGTTCAGCGTGGATGAGGGCCACAGTGGAGCACACAACCTCACCAGCACCTCAGTGT
 CGTGGATGGGTTGCTGAGCGAGCCAGGGATGAGACGCTGGTTCATGACGGTCTTTGGTCACATCAGTTC
 CGCTCTGACTGGGAGCTGGTCAAGGTTGACTTCCGGCCCTCTTCCCCGGCAGTGTGGCAGGATGACT
 ACAGCTCCTGGGACCTCACTGACCTCCAGGGTATCACTGCATCATGGCCAACAGAGAAGTTACCGGAA
 GAGAAAGTCCACATCCTGGTGTGTCAAGGACGGAGCTTCACATCAGCACTCACGTACGTGTGTGCAAG
 TGCCGGGACTCCGACTTCTCTGTGACTACGGTTTGTGAGCGCTCATCTTCTCGGAGTCCACTGCCAACA
 AGTGTCTGCCAACTTCTGGTTCAACCTTTGTCTCCTCTGAAGACTGTGTCTTGGGTCAGACTTACAC
 TAGTAGCCTTGGGTACCGAAAGGTGGTGTCCAATGTGTGTGAAGGTGGTGTGGACCTGCAGCAGAGCCCA
 GTGCAGCTGCAGTCCCCCTCCAGGCACCCGGGGCTGCAGGTGAGCATCCGAGGAGAGGCAGTGGCCG
 TGCGGCCATAGAGAAGATGTGCTGTTTGTGGTGCAGACAGGAACAGGGTGTGTCCTGACCACTAAATATCA
 GGTGGATCTTGGGATGGCTTCAAGGCCATGTACGTGAACCTCACTCTGACAGGCGAGCCATTGACAT
 CACTATGAGAGTCTGGCATCTACCGAGTGTCCGTGAGGCTGAGAACATGGCAGGCCATGATGAGGCTG
 TGCTCTTTGTCCAGGTCAACTCTCCCCTGACGGCCCTCTACCTCGAGGTAGTTCCTGTCTATGGCGTCAA
 CCAGGAGGTGAACCTCACAGCCGTGCTGTTACCCCTGAATCCCAACCTCACTGTCTTCTACTGGTGGATC
 GGCCACAGCTTGCAGCCTCTGCTTTCCTTGGACAACCTCGGTGACAACAAAGTTTACGGACCTGGGGATG
 TGCGTGTGACAGTGAAGCTGCCTGCGGAACTCAGTGTTCAGGACTCCAGGCTCGTCCGTGTGCTCGA
 TCAGTTCAGGTGGTGCCTCTGCGGTTCTCCAGGGAGCTGGACACCTTTAACCCCAACACTCCTGAATGG
 AGGGAAGATGTGGGACTGGTGGTCAACCGACTGCTCTCCAAGGAGACCAGCATCCAGAGGAGCTGCTTG
 TGACTGTGGTAAAGCCAGGGCTGCCACCATAGCCGACTTGTATGTGCTTCTGCCTTCCCAAGGCCAC
 AAGGAAGAGGAGCCTCACAAAGTACAAGAGACTGGCAGCCGTGCAGCAGGCGCTGAACCTCATAGAATC
 AGCTTCATCCTTCGAGGAGGGCTTCGTATCCTGGTGGAGCTGAGGGACACAGACAGGTCTCAGAGGC
 CAGGTGGCAGTGGTGGCTACTGGCCGTGGTGGTCTTCTTGTGATTGGGCTCTTTCAGTGGAGCATT
 CATCCTCTACAAGTTCAAAGGAAACGTCCAGGCAGGACAGTGTACGCCAGATGCACAATGAGAAGGAA
 CAGGAGATGACAAGTCCCGTGTGACAGTGTGAGGATGCCAGAGCACCATGCAGGGCAACCACTCAGGGG
 TGGTCTGAGCATCAACTCTCGTGTGATGCATAGCTACCTGGTGGGCTGA

ACGGCTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** Ascl-MluI
- ACCN:** NM_030889
- Insert Size:** 3480 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_030889.2](#), [NP_112151.2](#)

RefSeq Size: 5722 bp

RefSeq ORF: 3480 bp

Locus ID: 81840

UniProt ID: [Q9EPR5](#)

Cytogenetics: 5 B3

Gene Summary: The heterodimer formed by NGFR and SORCS2 functions as receptor for the precursor forms of NGF (proNGF) and BDNF (proBDNF) (PubMed:22155786, PubMed:24908487, PubMed:27457814, PubMed:29909994). ProNGF and proBDNF binding both promote axon growth cone collapse (in vitro) (PubMed:24908487). Plays a role in the regulation of dendritic spine density in hippocampus neurons (PubMed:29909994). Required for normal neurite branching and extension in response to BDNF (PubMed:27457814, PubMed:29909994). Plays a role in BDNF-dependent hippocampal synaptic plasticity (PubMed:29909994, PubMed:27457814). Together with NGFR and NTRK2, is required both for BDNF-mediated synaptic long-term depression and long-term potentiation (PubMed:27457814). ProNGF binding promotes dissociation of TRIO from the heterodimer, which leads to inactivation of RAC1 and/or RAC2 and subsequent reorganization of the actin cytoskeleton (By similarity). Together with the retromer complex subunit VPS35, required for normal expression of GRIN2A at synapses and dendritic cell membranes (PubMed:28469074). Required for normal expression of the amino acid transporter SLC1A1 at the cell membrane, and thereby contributes to protect cells against oxidative stress (PubMed:30840898).[UniProtKB/Swiss-Prot Function]