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Product datasheet for SC115167

Caspr2 (CNTNAP2) (NM_014141) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Caspr2 (CNTNAP2) (NM_014141) Human Untagged Clone
Tag:	Tag Free
Symbol:	Caspr2
Synonyms:	AUTS15; CASPR2; CDFE; NRXN4; PTHSL1
Mammalian Cell Selection:	None
Vector:	pCMV6-XL4
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

>OriGene ORF within SC115167 sequence for NM_014141 edited (data generated by NextGen Sequencing)

ATGCAGGCGGCTCCGCGCGCCGGCTGCGGGGCAGCGCTCCTGCTGTGGATTGTCAGCAGC
TGCCTCTGCAGAGCCTGGACGGCTCCCTCCACGTCCCAAAAATGTGATGAGCCACTTGTC
TCTGGACTCCCCCATGTGGCTTTCAGCAGCTCCTCCTCCATCTCTGGTAGCTATTCTCCC
GGCTATGCCAAGATAAACAAGAGAGGAGGTGCTGGGGGATGGTCTCCATCAGACAGCGAC
CATTATCAATGGCTTCAGGTTGACTTTGGCAATCGGAAGCAGATCAGTGCCATTGCAACC
CAAGGAAGGTATAGCAGCTCAGATTGGGTGACCCAATACCGGATGCTCTACAGCGACACA
GGGAGAAACTGGAAACCCTATCATCAAGATGGGAATATCTGGGCATTTCCCGGAAACATT
AACTCTGACGGTGTGGTCCGGCACGAATTACAGCATCCGATTATTGCCCGCTATGTGCGC
ATAGTGCCTCTGGATTGGAATGGAGAAGGTCGCATTGGACTCAGAATTGAAGTTTATGGC
TGTTCTTACTGGGCTGATGTTATCAACTTTGATGGCCATGTTGTATTACCATATAGATTC
AGAAACAAGAAGATGAAAACACTGAAAGATGTCATTGCCTTGAACTTTAAGACGTCTGAA
AGTGAAGGAGTAATCCTGCACGGAGAAGGACAGCAAGGAGATTACATTACCTTGGAACTG
AAAAAAGCCAAGCTGGTCCTCAGTTTAAACTTAGGAAGCAACCAGCTTGGCCCCATATAT
GGCCACACATCAGTGATGACAGGAAGTTTGCTGGATGACCACCACTGGCACTCTGTGGTC
ATTGAGCGCCAGGGGCGGAGCATTAACCTCACTCTGGACAGGAGCATGCAGCACTTCCGT
ACCAATGGAGAGTTTGACTACCTGGACTTGGACTATGAGATAACCTTTGGAGGCATCCCT
TTCTCTGGCAAGCCCAGCTCCAGCAGTAGAAAGAATTTCAAAGGCTGCATGGAAAGCATC
AACTACAATGGCGTCAACATTACTGATCTTGCCAGAAGGAAGAAATTAGAGCCCTCAAAT
GTGGGAAATTTGAGCTTTTCTTGTGTGGAACCCTATACGGTGCCTGTCTTTTTCAACGCT
ACAAGTTACCTGGAGGTGCCCGGACGGCTTAACCAGGACCTGTTCTCAGTCAGTTTCCAG
TTTAGGACATGGAACCCCAATGGTCTCCTGGTCTTCAGTCACTTTGCGGATAATTTGGGC
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AAGATGAGCCAAATCGATATTTCCTCAGGTTCTGGGTTGAATGATGGACAGTGGCACGAG
GTTCGCTTCCTAGCCAAGGAAAATTTTGCTATTCTCACCATCGATGGAGATGAAGCATCA
GCAGTTCGAACTAATAGTCCCCTTCAAGTTAAAACTGGCGAGAAGTACTTTTTTGGAGGT

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TTTCTGAACCAGATGAATAACTCAAGTCACTCTGTCCTTCAGCCTTCATTCCAAGGATGC
ATGCAGCTCATTCAAGTGGACGATCAACTTGTAAATTTATACGAAGTGGCACAAAGGAAG
CCGGGAAGTTTCGCGAATGTCAGCATTGACATGTGTGCGATCATAGACAGATGTGTGCCC
AATCACTGTGAGCATGGTGGAAAGTGCTCGCAAACATGGGACAGCTTCAAATGCACTTGT
GATGAGACAGGATACAGTGGGGCCACCTGCCACAACTCTATCTACGAGCCTTCCTGTGAA
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TCTCATGACTTGCAGATGCAGACGCCTGTGGTCGGCTACAACCCAGAAAAATACTCAGTG
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CAGTTATTTGTGGGTGGTGCTGGGGGCCAGCAGGGCTTCCTGGGCTGCATCCGCTCCTTG
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CTAGAGAGATACCACGGTTACTCCTGCGATTGCTCTAATACTGCATATGATGGAACATTT
TGCAACAAAGATGTTGGTGCATTTTTTGAAGAAGGGATGTGGCTACGATATAACTTTCAG
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AACTCCCACCCGGACCTGGCACAGGAGGAGATCCGCTTCAGCTTCAGCACCACCAAGGCG
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GAGAAGACCATCTTTCTCAAGCTCGATCATTATCCTTCTGTGAGTTACCATCTGCCAAGT
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TTCCTGATCCGGTACATGTTCCGCCACAAGGGCACCTACCATACCAACGAAGCAAAGGGG
GCGGAGTCGGCAGAGAGCGCGGACGCCGCCATCATGAACAACGACCCCAACTTCACAGAG
ACCATTGATGAAAGCAAAAAGGAATGGCTCATTTGA

Clone variation with respect to NM_014141.5
2280 a=>g;3723 g=>a

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_014141 unedited
NNGGCGTTCATCATTTGTNATACGACTCACTATAGGCGGCCGCGNAATTCGCACGAGCCT
CCCTCCCCCGTCCTTTGGTGATTTTTTTTTTTCAAAAAGGAGAAGGCGGGGTAGGTGTCC
GTTCCCTCCCCTCTTCCCCCTCCTTTGCCTTCTTGGTTTGAATTTCCTCCCCCGGCGTTG
CACTGGCACACAGTGCAAGAGGCAATACCCGCACTGAGGGAGAACGAAGGCTGAGACTCC
CCTGCCGCTCCAAGCCCGGAAGAACTGGAGCCTGGAGGGGGGTGAGGGGAGAAGAGGAAG
CGGGAGGAGCTTGGCTTCCTCGCGTATTTGAGGACAGCCCATCTCCCTTCAAGAACCCTA
CGGAGAGTCGGACTGCATCTCCGCAGCGAGCTCTTGGAGCGCCGCCGGCCGGGAGGCGAA
GGATGCAGGCGGCTCCGCGCGCCGGCTGCGGNGCAGCGCTCCTGCTGTGGATTGTCAGCA
GCTGCCTCTGCAGAGCCTGGACGGCTCCCTCCACGTCCCAAANATGTGATGAGCCACTTG
TCTCTGGACTCCCCCATGTGGCTTTCAGCAGCTCCTCCTCCATCTCTGGTAGCTATTCTC
CCGGCTATGCCCAGATAAAACAGAAAAGAGGTGCCTGGGGGATGGGTCTCATCAGACAGC
GACCATTATCAATGGCTTCANGTTTGACTTTGGCAATCGAAAGCAGATCAGTGCCCTTTG
CAACCCAAGGAAAGTATAGCAGCTCAGATTGGGTGACCCAATAACCGGATGCTCTACAGC
GACCCAGGGAGAACCTGGAAACCCCTATCATCAGATGGGAATTATCTGGGCCTTTTCCGG
AAACATTAACTCTGACCGTGTGGTTCGGCCCCATTTACAGCTCCCATTATTGCCCGCTTT
GTC

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_014141 unedited
CTTGGCCGCGGCCGCAATCTANGTCGAGTTTTTTTTTTTTTTTTTGTGATCAGTCTCAA
GAATATTCCATTATATTCCATTGCCTGCCTCCCCCAACTTGTGCTGATATTTTAAGGATG
TGCTCAAGAGTATGAAGCAGGGTGCTTTTGTCCCTTTCTCTCCTCCCTAGTAATTCCCTC
CTCCCTATCCCATAGCCAAGTAGCCACCCCTCAAATGAGCCATTCCTTTTTGCTTTCATC
AATGGTCTCTGTGAAGTTGGGGTCGTTGTTCATGATGGCGGCGTCCGCGCTCTCTGCCGA
CTCCGCCCCCTTTGCTTCGTTGGTATGGTAGGTGCCCTTGTGGCGGAACATGTACCGGAT
CAGGAAGACCAGGGTGCACAGGATGGTGAAAATCACCACAGCAATGACGCCTCCAATGAT
AGCCGAGTTTCTGTTGACTCCATTTCTTATAGCTTGGCCTTGTCCTGGATTATATGGAAA
ATCTGCACTGGCTGAATCCAGGTGATCCAGGTGCCAGGGGTCGGTGGCGGACGACATGGG
GGAGAGGGTCAGCGGCGAGGCCCCGCAGTTGGACTCCACCAGCTCGCCCTGGATGTGGAC
GTGAGCCGAGGCGTTTGTCTGCCTCAAGGCGGNCTTGAGAGGGGCGATCTGGTTGAACTG
GACTCTGGAGAGGCAACCAGTGAATCCTGGGGTGTTGTATTTGTGAATCTCTTGGTCAAT
TTTCCCTGTTTCTATAACTTTTTCCAGAAAGAGCGACTTGGGAGAAATGAAGAGGGTGTC
GGATGAACTGGGCAGATGGGAACTCACAGAAGGATAATGATCGAGCTTGAGCAAAGAGGT
CTTCTCGTGGCGGTTGATGTTGACACTGGGGGGCTGTCCATTGGCCCTGGTCCCTGGGGC
TAACCACATATTGGATGCCTCTCGGNGGCACCCCAGTTGGATCGCATCTGTAAGCTTCCG
GGGTTTTCACAGGCACGCCAAAA

Restriction Sites: NotI-NotI

ACCN: NM_014141

Insert Size: 4230 bp

OTI Disclaimer:	Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery. 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
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_014141.3, NP_054860.1
RefSeq Size:	8107 bp
RefSeq ORF:	3996 bp
Locus ID:	26047
UniProt ID:	Q9UHC6
Cytogenetics:	7q35-q36.1
Domains:	F5_F8_type_C, LamG, EGF
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Cell adhesion molecules (CAMs)

Gene Summary: This gene encodes a member of the neurexin family which functions in the vertebrate nervous system as cell adhesion molecules and receptors. This protein, like other neurexin proteins, contains epidermal growth factor repeats and laminin G domains. In addition, it includes an F5/8 type C domain, discoidin/neuropilin- and fibrinogen-like domains, thrombospondin N-terminal-like domains and a putative PDZ binding site. This protein is localized at the juxtaparanodes of myelinated axons, and mediates interactions between neurons and glia during nervous system development and is also involved in localization of potassium channels within differentiating axons. This gene encompasses almost 1.5% of chromosome 7 and is one of the largest genes in the human genome. It is directly bound and regulated by forkhead box protein P2, a transcription factor related to speech and language development. This gene has been implicated in multiple neurodevelopmental disorders, including Gilles de la Tourette syndrome, schizophrenia, epilepsy, autism, ADHD and intellectual disability. [provided by RefSeq, Jul 2017]