

Product datasheet for **RG210836**

Caspr2 (CNTNAP2) (NM_014141) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Caspr2 (CNTNAP2) (NM_014141) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Caspr2
Synonyms:	AUTS15; CASPR2; CDFE; NRXN4; PTHSL1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG210836 representing NM_014141 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGACGGCGGCTCCGCGCGCCGGCTGCGGGGCAGCGCTCCTGCTGTGGATTGTCAGCAGCTGCCTCTGCA
GAGCCTGGACGGCTCCCTCCACGTCCCAAAAATGTGATGAGCCACTTGTCTCTGGACTCCCCATGTGGC
TTTCAGCAGCTCCTCCTCATCTCTGGTAGCTATTCTCCCGGCTATGCCAAGATAACAAGAGAGGAGGT
GCTGGGGGATGGTCTCCATCAGACAGCGACCATTATCAATGGCTTCAGGTTGACTTTGGCAATCGGAAGC
AGATCAGTGCCATTGCAACCCAAGGAAGGTATAGCAGCTCAGATTGGGTGACCCAATACCGGATGCTCTA
CAGCGACACAGGGAGAACTGGAAACCCTATCATCAAGATGGGAATATCTGGGCATTTCCCGGAAACATT
AACTCTGACGGTGTGGTCCGGCACGAATTACAGCATCCGATTATTGCCCGCTATGTGCGCATAGTGCCCTC
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AAAACTGGCGAGAAGTACTTTTTGGAGGTTTTCTGAACCAGATGAATAACTCAAGTCACTCTGTCTTC
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 GGACCGCCCATCATGAACAACGACCCCAACTTCACAGAGACCATTGATGAAAGCAAAAAGGAATGGCTC
 ATT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG210836 representing NM_014141
 Red=Cloning site Green=Tags(s)

MQAAPRAGCGAALLLWIVSSCLCRAWTAPSTSQKCDEPLVSGLPHVAFSSSSISGSYSPGYAKINKRGG
 AGGWSPSDSDHYQWLQVDFGNRKQISAIATQGRYSSDWTQYRMLYSDTGRNWKPYHQDGNIAWAFPGNI
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 VIALNFKTSESEGVILHGEGQQGDYITLLEKKAKLVLSLNLGSNQLGPIYGHTSVMTGSLDDHHWHSVV
 IERQGRSINLTLDRSMQHFRTNGEFDYLDL.DYEITFGGIPFSGKPSSSRKNFKGCMESINYNGVNIIDL
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 NVEIDLTESKVGVHINITQTKMSQIDISSGSLNDGQWHEVRFLAKENFAILIDGDEASAVRTNSPLQV
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 GSPYTWVWGKANEKHYYWGGSGPGIQKACGIERNCTDPKYCNCADYKQWRKDAGFLSYKDHLVPSQV
 VVGDTDRQGSEAKLSVGPLRCQGDNRNYNAASFNPSSYLHFSTFQGETSADISFYFKTLTPWGVLENM
 GKEDFIKLELKSATEVSFSDVGNPVEIVVRSPTPLNDQWHRVTAERNVKQASLQVDRLPQQIRKAPT
 EGHTRLELQYQLFVGGAGGQQGFLGCIRSLRMNGVTLDEERAKVTSGFISGCSGHCTS YGTNCENGGKC
 LERYHGYSCDCSNTAYDGTFCNKDVGAFEEGMWLRYNFQAPATNARDSSSRVDNAPDQQNSHPDLAQEE
 IRFSFSTTKAPCILLYISSFTTDFLAVLVKPTGSLQIRYNLGGTREPYNIDVDHRNMANGQPHSVNITRH
 EKTIFLKLDPHYSVSYHLPSSTDLFNSPKSLFLGKVIETGKIDQEIHKYNTPGFTGCLSRVQFNQIAPL
 KAALRQTNASAHVHIQVELVESNCGASPLTSPMSSATDPWHLDHLDASADFPYNPQGQQAIRNGVNRN
 SAIIGGVIAVVIFITLCTLVFLIRYMFHRHKGTYHTNEAKGAESAESAADAAMNNDPNFTETIDESKKEWL
 I

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_014141

ORF Size: 3993 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](#)

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_014141.4](#), [NP_054860.1](#)

RefSeq Size: 9890 bp

RefSeq ORF: 3996 bp

Locus ID: 26047

UniProt ID: [Q9UHC6](#)

Cytogenetics: 7q35-q36.1

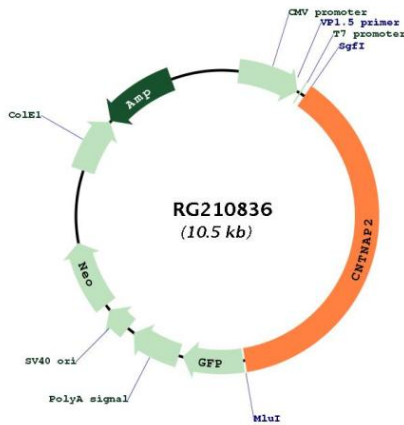
Domains: F5_F8_type_C, LamG, EGF

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]

Product images:


Circular map for RG210836