

## Product datasheet for RC210836

### 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:	Myc-DDK
Symbol:	Caspr2
Synonyms:	AUTS15; CASPR2; CDFE; NRXN4; PTHSL1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC210836 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

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Protein Sequence:

>RC210836 protein sequence  
 Red=Cloning site Green=Tags(s)

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I
    
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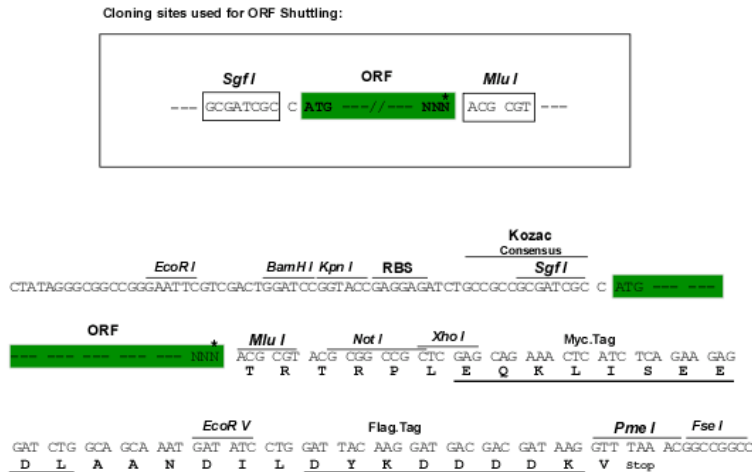
Chromatograms:

[https://cdn.origene.com/chromatograms/mk6141\\_e12.zip](https://cdn.origene.com/chromatograms/mk6141_e12.zip)

Restriction Sites:

SgfI-MluI

Cloning Scheme:



\* The last codon before the Stop codon of the ORF

ACCN:

NM\_014141

ORF Size:

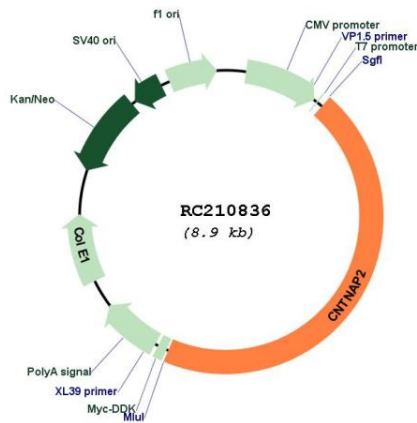
3993 bp

<b>OTI Disclaimer:</b>	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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> 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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<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>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NM_014141.6</a>
<b>RefSeq Size:</b>	9894 bp
<b>RefSeq ORF:</b>	3996 bp
<b>Locus ID:</b>	26047
<b>UniProt ID:</b>	<a href="#">Q9UHC6</a>
<b>Cytogenetics:</b>	7q35-q36.1
<b>Domains:</b>	F5_F8_type_C, LamG, EGF
<b>Protein Families:</b>	Druggable Genome, Transmembrane
<b>Protein Pathways:</b>	Cell adhesion molecules (CAMs)
<b>MW:</b>	148.2 kDa

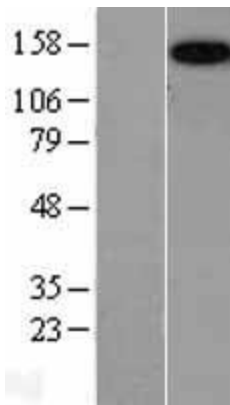
**Gene Summary:**

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]

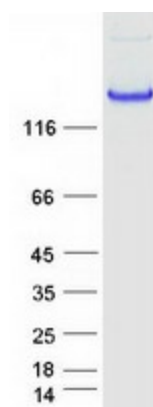
**Product images:**



Circular map for RC210836



Western blot validation of overexpression lysate (Cat# [LY402278]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210836 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CNTNAP2 protein (Cat# [TP310836]). The protein was produced from HEK293T cells transfected with CNTNAP2 cDNA clone (Cat# RC210836) using MegaTran 2.0 (Cat# [TT210002]).