

## Product datasheet for **RC215381**

### Neurexin 1 (NRXN1) (NM\_138735) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Neurexin 1 (NRXN1) (NM_138735) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Neurexin 1
Synonyms:	Hs.22998; PTHSL2; SCZD17
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC215381 representing NM\_138735  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGTACCAGAGGATGCTCCGGTGC GGCGCCGAGCTGGGCTCGCCCGGGGCGGGCGGGCGGGCGGGCGG  
 GCGGGCGGCAGGGGGCGCCTGGCCCTGCTTTGGATAGTCCCGCTCACCTCAGCGGCCTCCTAGGAGT  
 GGCGTGGGGGCATCCAGTTTGGGAGCGCACCATCCACCATTTCATGGCAGCAGCAAGCATCATTCA  
 GTGCTATTGCAATCTACAGGTACCGGCATCCTTGCAGGGCGGACCGTGGGACGACATATATCTTTA  
 GCAAAGGTGGTGACAAATCACGTATAAGTGGCCTCCTAATGACCGACCCAGTACACGAGCAGACAGACT  
 GGCCATAGGTTTTAGCACTGTTCAGAAAGAAGCCGTATTGGTGCAGTGGACAGTTCTTCAGGCTTGGGT  
 GACTACCTAGAAGTGCATATACACCAGGAAAAATTGGAGTTAAGTTTAAATGTTGGGACAGATGACATCG  
 CCATTGAAGAATCCAATGCAATCATTAAATGATGGGAAATACCATGTAGTTCGTTTCACGAGGAGTGGTG  
 CAATGCCACGTTGCAGGTGGACAGCTGGCCAGTATCGAGCGCTACCCTGCAGGGCGTCACTCACAAATC  
 TTCAATAGCCAAGCAACCATAATAATTGGCGGGAAAGAGCAGGGCCAGCCCTTCCAGGGCCAGCTCTCTG  
 GGCTGTACTACAATGGCTTAAAAGTTCTGAATATGGCAGCCGAAAACGATGCCAACATCGCCATAGTGGG  
 AAATGTGAGACTGGTTGGTGAAGTGCCTTCTCTATGACAACTGAGTCAACAGCCACTGCCATGCAATCA  
 GAGATGTCACATCAATTATGGAGACTACCACGACCCTGGCTACTAGCACAGCCAGAAGAGGAAAGCCCC  
 CGACAAAAGAACCATTAGCCAGACCACAGATGACATCCTTGTGGCCTCAGCAGAGTGTCCAGCGATGA  
 TGAGGACATTGACCCCTGTGAGCCGAGCTCAGTGGGTAGCCAACCAACCCGAGCAGGCGGCAGAGAG  
 CCGTATCCAGGCTCAGCAGAAGTATCCGGGAGTCCAGCAGCACACGGGTATGGTCGTTGGGATAGTAG  
 CCGCTGCCGCCCTGTGCATCCTTATCCTCCTCTATGCCATGTACAAGTACAGAAACCGGGATGAAGGCTC  
 ATACCATGTGGACGAGAGTCAAACTACATCAGTAACTCAGCACAGTCCAATGGGGCTGTTGTAAGGAC  
 AAACAACCCAGCAGTGC AAAAGCTCCAACAAAATAAGAAAAACAAGGATAAAGAGTATTATGTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC215381 representing NM\_138735  
 Red=Cloning site Green=Tags(s)

MYQRMLRCGAELGSPGGGGGGGGGAGGRLALLWIVPLTSLGLGVAWGASSLGAHHIHHFHGSSKHHS  
 VPIAIYRSPASLRGGHAGTTYIFSKGGGQITYKWPPNDRPSTRADRLAIGFSTVQKEAVLVRVDSSSLG  
 DYLELHIHQKIGVKFNVTDDIAIEESNAIINDGKYHVVRFRTRSGGNATLQVDSWPVIERYPAGRQLTI  
 FNSQATIIIGGKEQGQPFQQLSGLYYNGLKVLNMAAENDANIAIVGNVRLVGEVPSMTTESTATAMQS  
 EMSTSIMETTTTLATSTARRGKPTKEPISQTTDDILVASAECPSDDEDIDPCEPSSGGLANPTRAGGRE  
 PYPGSAEVIRESSTTGMVVGIVAAAAALCILILLYAMYKYRNRDEGSYHVDESRNYISNSAQSNQAVVKE  
 KQPSSAKSSNKNKNKDKEYYY

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

**ACCN:** NM\_138735

**ORF Size:** 1326 bp

**OTI Disclaimer:** 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\\_138735.4](#)
**RefSeq Size:** 3712 bp

**RefSeq ORF:** 1329 bp

**Locus ID:** 9378

**UniProt ID:** [P58400](#)
**Cytogenetics:** 2p16.3

**Domains:** LamG

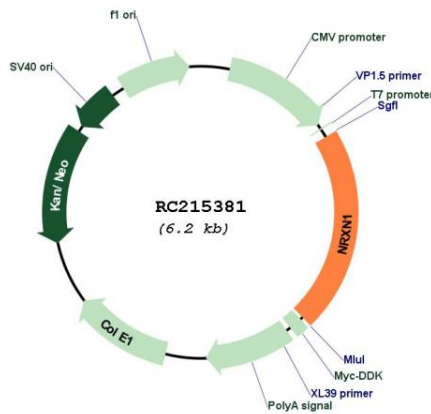
**Protein Families:** Druggable Genome, Transmembrane

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

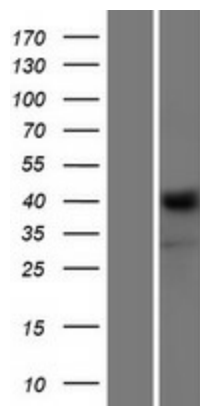
**MW:** 42.1 kDa

**Gene Summary:** This gene encodes a single-pass type I membrane protein that belongs to the neurexin family. Neurexins are cell-surface receptors that bind neuroligins to form Ca<sup>2+</sup>-dependent neurexin/neuroligin complexes at synapses in the central nervous system. This complex is required for efficient neurotransmission and is involved in the formation of synaptic contacts. Three members of this gene family have been studied in detail and are estimated to generate over 3,000 variants through the use of two alternative promoters (alpha and beta) and extensive alternative splicing in each family member. Recently, a third promoter (gamma) was identified for this gene in the 3' region. Mutations in this gene are associated with Pitt-Hopkins-like syndrome-2 and may contribute to susceptibility to schizophrenia. [provided by RefSeq, Aug 2016]

**Product images:**



Circular map for RC215381



Western blot validation of overexpression lysate (Cat# [LY403367]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC215381 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).