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Product datasheet for RC212646

Nicastrin (NCSTN) (NM_015331) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Nicastrin (NCSTN) (NM_015331) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Nicastrin
Synonyms:	ATAG1874
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC212646 representing NM_015331
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCTACGGCAGGGGGTGGCTCTGGGGCTGACCCGGGAAGTCGGGGTCTCCTTCGCCTTCTGTCTTTCT
GCGTCCTACTAGCAGGTTTGTGCAGGGGAAACTCAGTGGAGAGGAAGATATATATCCCCTTAAATAAAAC
AGCTCCCTGTGTTCGCCTGCTCAACGCCACTCATCAGATTGGCTGCCAGTCTTCAATTAGTGGAGACACA
GGGGTTATCCACGTAGTAGAGAAAGAGGAGGACCTACAGTGGGTATTGACTGATGGCCCCAACCCCCCTT
ACATGGTTCTGCTGGAGAGCAAGCATTTTACCAGGGATTTAATGGAGAAGCTGAAAGGGAGAACCAGCCG
AATTGCTGGTCTTGCAGTGTCCTTGACCAAGCCCAGTCCTGCCTCAGGCTTCTCTCCTAGTGTACAGTGC
CCAAATGATGGGTTTGGTGTTTACTCCAATTCCTATGGGCCAGAGTTTGCTCACTGCAGAGAAATACAGT
GGAATTCGCTGGGCAATGGTTTGGCTTATGAAGACTTTAGTTTCCCCATCTTTCTTCTTGAAGATGAAAA
TGAAACCAAAGTCATCAAGCAGTGCTATCAAGATCACAACCTGAGTCAGAATGGCTCAGCACCAACCTTC
CCACTATGTGCCATGCAGCTCTTTTCACACATGCATGCTGTCATCAGCACTGCCACCTGCATGCGGCGCA
GCTCCATCCAAAGCACCTTCAGCATCAACCCAGAAATCGTCTGTGACCCCCTGTCTGATTACAATGTGTG
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TGTCTTCTTTCAAGGGGAAACTTTTGACTACATTGGCAGCTCGAGGATGGTCTACGATATGGAGAAGGGC
AAGTTTCCCGTGCAGTTAGAGAATGTTGACTCATTTGTGGAGCTGGGACAGGTGGCCTTAAGAACTTCAT
TAGAGCTTTGGATGCACACAGATCCTGTTTCTCAGAAAAATGAGTCTGTACGGAACCAGGTGGAGGATCT
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CCTCAGGCAGGACCTAAGGTCCTACTTGGGTGACGGGCCTCTTCAACATTACATCGCTGTCTCCAGCCCC
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CCCTTTGCATTCTAATGAGACGGACCGACTCCCCCGGTGTGTGCGTTCTACTGCACGATTAGCCAGGGCC
TTGTCTCCTGCCTTTGAACTGAGTCAGTGGAGCTCTACTGAATACTCTACATGGACTGAGAGCCGCTGGA
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CGGCATCCTCATCTTCTCCCTCATCGTCACCTACTGCATCAATGCCAAAGCTGATGTCCTTTTCATTGCT
CCCCGGGAGCCAGGAGCTGTGTCATAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC212646 representing NM_015331
Red=Cloning site Green=Tags(s)

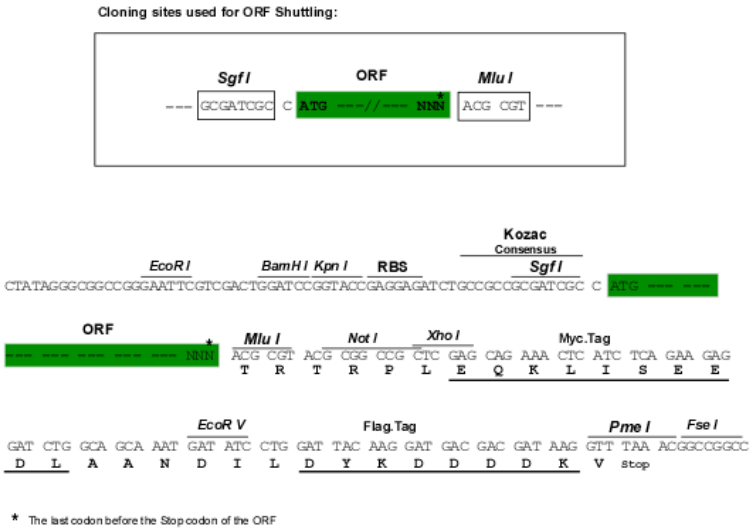
MATAGGGSGADPGSRGLLRLLSFCVLLAGLCRGNSVERKIYIPLNKTAPCVRLLNATHQIGCQSSISGDT
GVIHVVEKEEDLQWVLTDGPNPPYMVLLESKHFTRDLMEKLKGRTSRIAGLAVSLTKPSPASGFSPSVQC
PNDGFGVYSNSYGPEFAHCREIQWNSLGNGLAYEDFSFPIFLLEDENETKVIKQCYQDHNLSQNGSAPTF
PLCAMQLFSHMHAVISTATCMRRSSIQSTFSINPEIVCDPLSDYNVWSMLKPINTTGTLKPDDRVVVAAT
RLDSRSFFWNVAPGAESAVASFVTQLAAAEALQKAPDVTTLPRNVMFVFFQGETFDYIGSSRMVYDMEKG
KFPVQLENVDSFVELGQVALRTSLELWMHTDPVSQKNESVRNQVEDLLATLEKSGAGVPAVILRRPNQSQ
PLPPSSLQRFLRARNISGVVLADHSGAFHNKYYQSIYDTAENINVSYPEWLSPEEDLNFVTDTAKALADV
ATVLGRALYELAGGTNFSDTVQADPQTVTRLLYGFLIKANNSWFQSILRQDLRSYLGDGPLQHYIAVSSP
TNTTYVVQYALANLTGTVVNLTREQCQDPSKVPSENKDLYEYSWVQGPLHSNETDRLPRCVRSTARLARA
LSPAFELSQWSSTEYSTWTESRWKDIRARIFLIASKELELITLTVGFGILIFSLIVTYCINAKADVLFIA
PREPGAVSY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6109_e07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_015331

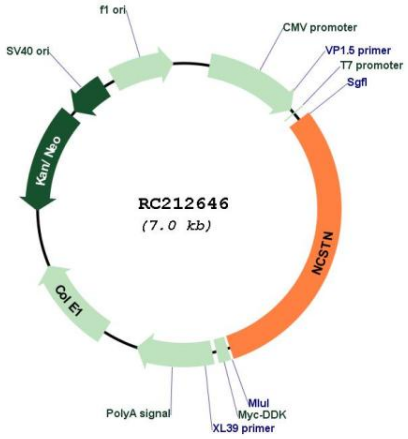
ORF Size: 2127 bp

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

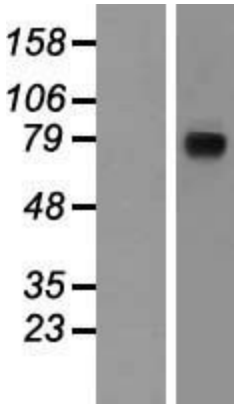
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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_015331.3
RefSeq Size:	2944 bp
RefSeq ORF:	2130 bp
Locus ID:	23385
UniProt ID:	Q92542
Cytogenetics:	1q23.2
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Alzheimer's disease, Notch signaling pathway
MW:	78.41 kDa
Gene Summary:	This gene encodes a type I transmembrane glycoprotein that is an integral component of the multimeric gamma-secretase complex. The encoded protein cleaves integral membrane proteins, including Notch receptors and beta-amyloid precursor protein, and may be a stabilizing cofactor required for gamma-secretase complex assembly. The cleavage of beta-amyloid precursor protein yields amyloid beta peptide, the main component of the neuritic plaque and the hallmark lesion in the brains of patients with Alzheimer's disease; however, the nature of the encoded protein's role in Alzheimer's disease is not known for certain. Mutations in this gene are associated with familial acne inversa. A pseudogene of this gene is present on chromosome 21. Alternatively spliced transcript variants of this gene have been described, but the full-length nature of some of these variants has not been determined. [provided by RefSeq, Feb 2014]

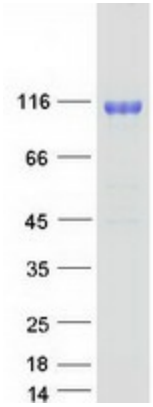
Product images:



Circular map for RC212646



Western blot validation of overexpression lysate (Cat# [LY414628]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC212646 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified NCSTN protein (Cat# [TP312646]). The protein was produced from HEK293T cells transfected with NCSTN cDNA clone (Cat# RC212646) using MegaTran 2.0 (Cat# [TT210002]).