

Product datasheet for **RC220241**

Neurotrypsin (PRSS12) (NM_003619) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Neurotrypsin (PRSS12) (NM_003619) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Neurotrypsin
Synonyms:	BSSP-3; BSSP3; MRT1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC220241 representing NM_003619
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGACGCTCGCCCGCTTCGTGCTAGCCCTGATGTTAGGGGCGCTCCCCGAAGTGGTCGGCTTTGATTCTG
 TCCTCAATGATTCCTCCACCACAGCCACCGCCATTTCGCCCTCGGGTCCGACTACCCCTATTACCT
 TCCCACCCAGCAGCGGCCCGGAGGACGCGTCCGCCGCCCTCTCCCGCGCTTCGCCGCGCCCCCGCGG
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AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC220241 representing NM_003619
 Red=Cloning site Green=Tags(s)

MTLARFVLALMLGALPEVVGFDVSLNDSLHSHRHSPPAGPHYPYLLPTQQRPPRTRPPPLPRFPRPPR
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 PDGAGRPFYGDARGKVDWGYCDRCRHSVRLRGGKNEFEGTVEVYASGVWGTVCSSHWDDSDASVICHQ
 LQLGGKGIKQTPFSGLLIPIYWSNVRCRGDEENILLCEKDIWQGGVCPQKMAAAVTCFSFSGPTFPII
 RLAGSSVHEGRVELYHAGQWGTVCDDQWDDADAEVICRQLGLSGIAKAWHQAYFGEESGPVMLDEVRC
 GNEL SIEQCPKSSWGEHNCGHKEDAGV SCTPLTDGVIRLAGGKGSHEGRLEVYYRQWGTVCDDGWTELN
 TYVYVCRQLGFKYKQASANHFEESTGPIWLLDDVSCSGKETRFLQCSRRQWRHDCSHREDVSIACYPGGE
 GHRLSLGFPVRLMDGENKKEGRVEVFINGQWGTICDDGWTDKDAAVICRQLGYKGPARTMAYFGEKGG
 PIHVDNVKCTGNERSLADCIKQDIGRHNCRHSAGVICDYFGKKASGNSNKESSVCGLRLLHRRQKR
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 EEFEEEEIGVQQIVIHREYRDRSDYDIALVRLQGP EEGCARFSSHVLPACLPLWRERPQKTASNCYITGW
 GDTGRAYSRTLQQAIIPLLPKRFC EERYKGRFTGRMLCAGNLHEHKRVDSQGDSSGGLMCERPGE SWVV
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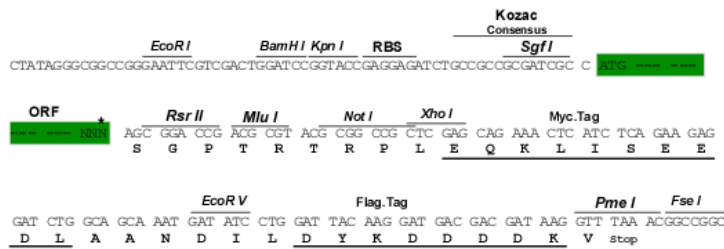
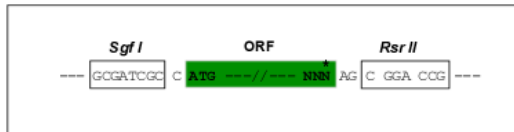
SGPTRRRLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8103_c03.zip

Restriction Sites: SgfI-RsrII

Cloning Scheme:

Cloning sites used for ORF Shuttling:

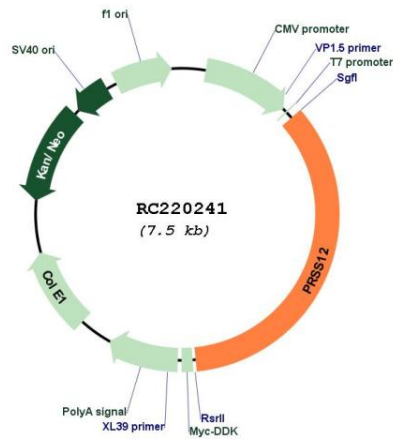


* The last codon before the Stop codon of the ORF

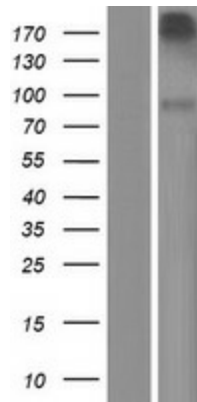
ACCN:	NM_003619
ORF Size:	2625 bp
OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid 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.</p> <p>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</p>
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:	<ol style="list-style-type: none"> 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_003619.4
RefSeq Size:	4573 bp
RefSeq ORF:	2628 bp
Locus ID:	8492
UniProt ID:	P56730
Cytogenetics:	4q26
Domains:	KR, SR, Tryp_SPc
Protein Families:	Druggable Genome, Protease, Secreted Protein
MW:	97.1 kDa

Gene Summary:

This gene encodes a member of the trypsin family of serine proteases and contains a signal peptide, a proline-rich region, a Kringle domain, four scavenger receptor cysteine-rich domains, and a trypsin-like serine protease domain. The protein, sometimes referred to as neurotrypsin or motopsin, is secreted from neuronal cells and localizes to the synaptic cleft. Studies in mice show that this protein cleaves a protein, agrin, that is important for the formation and maintenance of excitatory synapses. Defects in this gene cause a form of autosomal recessive cognitive impairment (MRT1). [provided by RefSeq, Jul 2017]

Product images:


Circular map for RC220241



Western blot validation of overexpression lysate (Cat# [LY418538]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220241 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).