

Product datasheet for **RC207563**

Enkephalin (PENK) (NM_006211) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Enkephalin (PENK) (NM_006211) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Enkephalin
Synonyms:	enkephalin A; preproenkephalin; proenkephalin
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC207563 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTAAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGCGGTTCTGACACTTTGCACTTGCTGCTGTTGCTCGGCCCGGGCTCCTGGCGACCGTGCGGG
CCGAATGCAGCCAGGATTGCGCGACGTGCAGCTACCGCCTAGTGCGCCCGGCCGACATCAACTTCCTGGC
TTGCGTAATGGAATGTGAAGGTAACTGCCTTCTCTGAAAATTTGGGAAACCTGCAAGGAGCTCCTGCAG
CTGTCAAACAGAGCTTCCTCAAGATGGCACCAGCACCTCAGAGAAAATAGCAAACCGGAAGAAAAGCC
ATTTGCTAGCCAAAAGGTATGGGGCTTCATGAAAAGGTATGGAGGCTTCATGAAGAAAATGGATGAGCT
TTATCCCATGGAGCCAGAAGAAGAGGCCAATGGAAGTGAGATCCTCGCCAAGCGGTATGGGGCTTCATG
AAGAAGGATGCAGAGGAGGACGACTCGCTGGCCAATTCCTCAGACCTGCTAAAAGAGCTTCTGGAACAG
GGGACAACCGAGAGCGTAGCCACCACAGGATGGCAGTGATAATGAGGAAGAAGTGAGCAAGAGATATGG
GGGCTTCATGAGAGGCTTAAAGAGAAGCCCCAACTGGAAGATGAAGCCAAGAGCTGCAGAAGCGATAT
GGGGGCTTCATGAGAAGAGTAGGTCGCCAGAGTGGTGGATGGACTACCAGAAACGGTATGGAGGTTTCC
TGAAGCGCTTTGCCGAGGCTCTGCCCTCCGACGAAGAAGGCGAAAGTTACTCCAAAGAAGTTCCTGAAAT
GGAAAAAGATACGGAGGATTTATGAGATTT

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
TGGATTACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC207563 protein sequence
 Red=Cloning site Green=Tags(s)

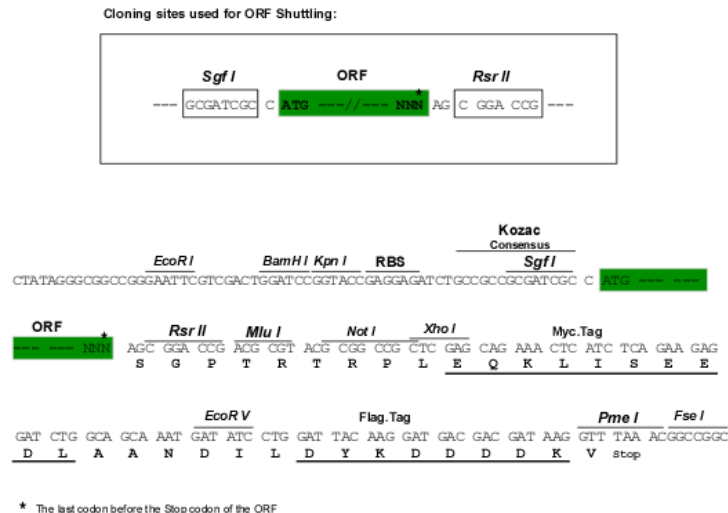
MARFLTCTWLLLLGPGLLATVRAECSQDCATCSYRLVRPADINFLACVMECEGKLP SLKIWETCKELLQ
 LSKPELPQDGTSTLRENSKPEESHLLAKRYGGFMKRYGGFMKKMDELYPMEPEEEANGSEILAKRYGGFM
 KKDAEEDDSLANSDDLKELLETDGNRERSHHQDGSNDEEVSKRYGGFMRGLKRSPQLEDEAKELQKRY
 GGFMRRVGRPEWMDYQKRYGGFLKRFAEALPSDEEGESYSKEVPEMEKRYGGFMRF

SGPTRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6183_c05.zip

Restriction Sites: SgfI-RsrII

Cloning Scheme:



ACCN: NM_006211

ORF Size: 801 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_006211.3](#)

RefSeq Size: 1221 bp

RefSeq ORF: 804 bp

Locus ID: 5179

Cytogenetics: 8q12.1

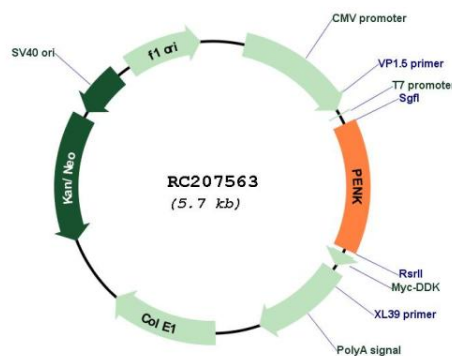
Domains: Opioids_neuropep

Protein Families: Secreted Protein

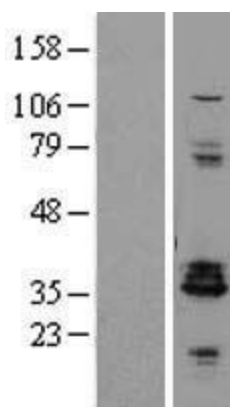
MW: 30.8 kDa

Gene Summary: This gene encodes a preproprotein that is proteolytically processed to generate multiple protein products. These products include the pentapeptide opioids Met-enkephalin and Leu-enkephalin, which are stored in synaptic vesicles, then released into the synapse where they bind to mu- and delta-opioid receptors to modulate the perception of pain. Other non-opioid cleavage products may function in distinct biological activities. [provided by RefSeq, Jul 2015]

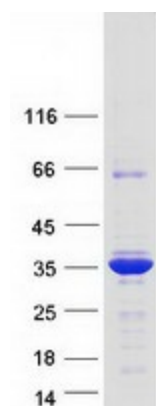
Product images:



Circular map for RC207563



Western blot validation of overexpression lysate (Cat# [LY427669]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC227805] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PENK protein (Cat# [TP307563]). The protein was produced from HEK293T cells transfected with PENK cDNA clone (Cat# RC207563) using MegaTran 2.0 (Cat# [TT210002]).