

Product datasheet for **RC227805**

Enkephalin (PENK) (NM_001135690) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Enkephalin (PENK) (NM_001135690) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Enkephalin
Synonyms:	PE; PENK-A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC227805 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGCGTTCTGACACTTTGCACTTGGCTGCTGTTGCTCGGCCCGGGCTCCTGGCGACCGTGCGGG
CCGAATGCAGCCAGGATTGCGCGACGTGCAGCTACCGCCTAGTGCGCCCGGCCGACATCACTTCTCTGGC
TTGCGTAATGGAATGTGAAGGTAAGTGCCTTCTCTGAAAATTTGGGAAACCTGCAAGGAGCTCCTGCAG
CTGTCAAACCCAGAGCTTCTCAAGATGGCACCAGCACCTCAGAGAAAATAGCAAACCGGAAGAAAGCC
ATTTGCTAGCCAAAAGGTATGGGGCTTCATGAAAAGGTATGGAGGCTTCATGAAGAAAATGGATGAGCT
TTATCCCATGGAGCCAGAAGAAGAGGCCAATGGAAGTGAGATCCTCGCCAAGCGGTATGGGGCTTCATG
AAGAAGGATGCAGAGGAGGACGACTCGCTGGCCAATTCCTCAGACCTGCTAAAAGAGCTTCTGGAACAG
GGGACAACCGAGAGCGTAGCCACCACCAGGATGGCAGTGATAATGAGGAAGAAGTGAGCAAGAGATATGG
GGGCTTCATGAGAGGCTTAAGAGAAGCCCCAACTGGAAGATGAAGCCAAGAGCTGCAGAAGCGATAT
GGGGCTTCATGAGAAGAGTAGGTCGCCAGAGTGGTGGATGGACTACCAGAAACGGTATGGAGGTTTCC
TGAAGCGCTTTGCCGAGGCTCTGCCCTCCGACGAAGAAGGCGAAAGTTACTCCAAAGAAGTTCCTGAAAT
GGAAAAAAGATACGGAGGATTTATGAGATTT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC227805 protein sequence
 Red=Cloning site Green=Tags(s)

MARFLTLC TWLLL GPGLLATVRAECSQDCATCSYRLVRPADINFLACVMECEGKLP SLKIWETCKELLQ
 LSKPELPQDGTSTLRENSKPEESHLLAKRYGGFMKRYGGFMKKMDEL YPMEPEEEANGSEILAKRYGGFM
 KKDAEEDDSLANSDDLKELLETDGNRERSHHQDGSNNEEVSKRYGGFMRGLKRSPQLEDEAKELQKRY
 GGFMRVRGRPEWMDYQKRYGGFLKRF AEALPSDEEGESYSKEVPEMEKRYGGFMRF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

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

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001135690

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.

RefSeq: [NM_001135690.3](#)

RefSeq Size: 1354 bp

RefSeq ORF: 804 bp

Locus ID: 5179

UniProt ID: [P01210](#)

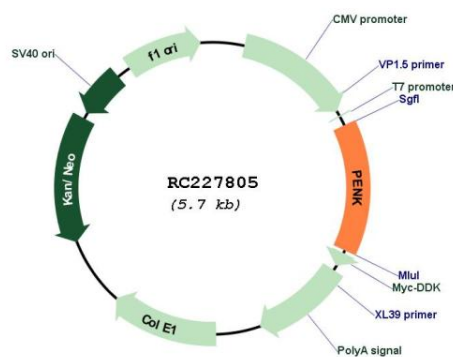
Cytogenetics: 8q12.1

Protein Families: Secreted Protein

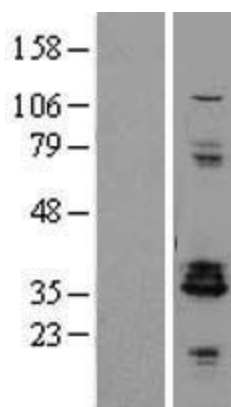
MW: 30.8 kDa

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]

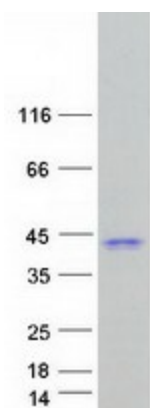
Product images:



Circular map for RC227805



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# [TP327805]). The protein was produced from HEK293T cells transfected with PENK cDNA clone (Cat# RC227805) using MegaTran 2.0 (Cat# [TT210002]).