

Product datasheet for **RC206056**

Neuropeptide Y (NPY) (NM_000905) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Neuropeptide Y (NPY) (NM_000905) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: Neuropeptide Y
Synonyms: PYY4
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC206056 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGCTAGGTAACAAGCGACTGGGGCTGTCCGGACTGACCCTCGCCCTGTCCCTGCTCGTGTGCCTGGGTG
CGCTGGCCGAGGCGTACCCCTCCAAGCCGGACAACCCGGGCGAGGACGCACCAGCGGAGGACATGGCCAG
ATACTACTCAGCGCTGCGACACTACATCAACCTCATCACCAGGCAGAGATATGGAAAACGATCCAGCCCA
GAGACACTGATTCAGACCTCTTGATGAGAGAAAGCACAGAAAATGTTCCAGAACTCGGCTTGAAGACC
CTGCAATGTGG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC206056 protein sequence
Red=Cloning site Green=Tags(s)

MLGNKRLGLSGLTLALSLLVCLGALAEAYSPKPDNPGEDAPAEDMARYYSALRHYINLITRQRYGKRSSP
ETLISDLLMRESTENVPTRLEDPAMW

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6031_a03.zip

Restriction Sites: SgfI-MluI



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Cloning Scheme:


ACCN: NM_000905

ORF Size: 291 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_000905.4](#)

RefSeq Size: 576 bp

RefSeq ORF: 294 bp

Locus ID: 4852

UniProt ID: [P01303](#)

Cytogenetics: 7p15.3

Domains: hormone3

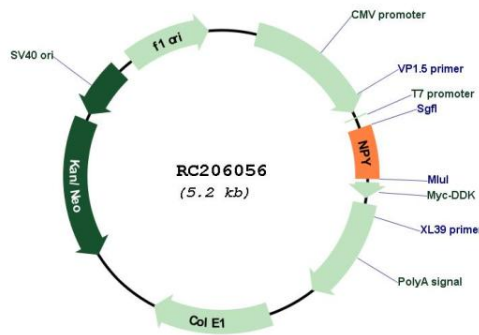
Protein Families: Druggable Genome, Secreted Protein, Transmembrane

Protein Pathways: Adipocytokine signaling pathway

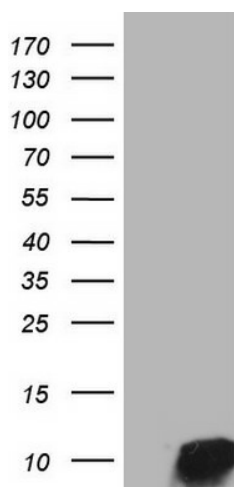
MW: 10.9 kDa

Gene Summary: This gene encodes a neuropeptide that is widely expressed in the central nervous system and influences many physiological processes, including cortical excitability, stress response, food intake, circadian rhythms, and cardiovascular function. The neuropeptide functions through G protein-coupled receptors to inhibit adenylyl cyclase, activate mitogen-activated protein kinase (MAPK), regulate intracellular calcium levels, and activate potassium channels. A polymorphism in this gene resulting in a change of leucine 7 to proline in the signal peptide is associated with elevated cholesterol levels, higher alcohol consumption, and may be a risk factor for various metabolic and cardiovascular diseases. The protein also exhibits antimicrobial activity against bacteria and fungi. [provided by RefSeq, Oct 2014]

Product images:



Circular map for RC206056



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY NPY (Cat# RC206056, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-NPY (Cat# [TA808282])(1:2000).