

Product datasheet for **SC119422**

CD13 (ANPEP) (NM_001150) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: CD13 (ANPEP) (NM_001150) Human Untagged Clone
Tag: Tag Free
Symbol: ANPEP
Synonyms: APN; CD13; GP150; LAP1; P150; PEPN
Vector: pCMV6-XL4
E. coli Selection: Ampicillin (100 ug/mL)
Cell Selection: None
Fully Sequenced ORF: >OriGene sequence for NM_001150 edited

```
GAATTCGGCACGAGCCAGTGTCTGGAGGGCAGGGACGGCGCGGCAGCTCGGAACCCG
CCAGGGTCCAGGGTCCAGGTTCCAGCGCCCGGGCGCCAGCTCTCAAGCAGATCAATGCA
ATGCCACCTGGCCGCTTCTTTGCCCACTGGGCCTACAGCCGGAAGCCTGCCCTTCAGCC
CTCGGGCTGATCCCAGGCCGCTGCAGCCTGTAACCAGACACTGTTTGTTCAGCAGG
CACCCCCGAGCCAGCTCCACACACCGTTCTGGATCTCCTCTCCCAGGCGGAGCGTG
CCCCTGCCAGTCCAGCGACCTTCGCTGTTGGAGCCCTGGTTAATTTTTGCCAGTCTG
CCTGTTGTGGGGCTCCTCCCTTTGGGGATATAAGCCCGCCTGGGGCTGCTCCGTTCTC
TGCTGGCCTGAGGCTCCCTGAGCCGCTCCCCACCATCACCATGGCCAAGGGCTTCTAT
ATTTCCAAGTCCCTGGGCATCCTGGGGATCCTCCTGGGCGTGGCAGCCGTGTGCACAATC
ATCGCACTGTCACTGGTGTACTCCAGGAGAAGAACAAGAACGCCAACAGCTCCCCCGTG
GCCTCCACCACCCGTCGCTCAGCCACCACCAACCCCGCCTCGGCCACCACCTTGGAC
CAAAGTAAAGCGTGAATCGTTACCGCCTCCCCAACACGCTGAAACCCGATTCTACCAG
GTGACGCTGAGACCGTACCTCACCCCAATGACAGGGGCTGTACGTTTTTAAGGGCTCC
AGCACCGTCCGTTTACCTGCAAGGAGGCCACTGATGTCATCATCCACAGCAAGAAG
CTCAACTACACCTCAGCCAGGGGCACAGGGTGGTCTGCGTGGTGTGGGAGGCTCCCAG
CCCCCGACATTGACAAGACTGAGCTGGTGGAGCCACCGAGTACCTGGTGGTGCACCTC
AAGGGCTCCCTGGTGAAGGACAGCCAGTATGAGATGGACAGCGAGTTCGAGGGGGAGTTG
GCAGATGACCTGGCGGGCTTCTACCGCAGCGAGTACATGGAGGGCAATGTCAGAAAGGTG
GTGGCCACTACACAGATGCAGGCTGCAGATGCCCGGAAGTCTTCCCATGCTTCGATGAG
CCGGCCATGAAGGCCGAGTTCAACATCACGCTTATCCACCCCAAGGACCTGACAGCCCTG
TCCAACATGCTTCCAAAGGTCCAGCACCCCACTTCCAGAAGACCCCACTGGAATGTC
ACTGAGTTCACACCACGCCAAGATGTCCACGTAATTGCTGGCCTTCATTGTCAGTGAG
TTCGACTACGTGGAGAAGCAGGCATCCAATGGTGTCTTGATCCGGATCTGGGCCCGGCC
AGTGCCATTGCGGTGGGCCACGGCGATTATGCCCTTAACGTGACAGGCCCATCCTTAAC
TTCTTTGCTGGTATTATGACACACCCTACCCACTCCCAAAATCAGACCAGATTGGCCTG
CCAGACTTCAACGCCGGCCATGGAGAAGTGGGACTGGTGACCTACCGGGAGAAGTCC
CTGCTGTTGACCCCTGTCTCCTCCAGCAGCAACAAGGAGCGGGTGGTCACTGTGATT
```



[View online »](#)

GCTCATGAGCTGGCCACCAGTGGTTCGGGAACCTGGTGACCATAGAGTGGTGGAAATGAC
CTGTGGCTGAACGAGGGCTTCGCCTCCTACGTGGAGTACCTGGGTGCTGACTATGCCGAG
CCCACCTGGAACCTGAAAGACCTCATGGTGTGAATGATGTGTACCGCGTGATGGCAGTG
GATGCACTGGCCTCCTCCCACCCGCTGTCCACACCCGCTCGGAGATCAACACGCCGGCC
CAGATCAGTGAGCTGTTTGACGCCATCTCTACAGCAAGGGCGCCTCAGTCTCAGGATG
CTCTCCAGTTCCTGTCCGAGGACGTATTCAAGCAGGGCCTGGCGTCTACCTCCACACC
TTTGCTACCAGAACCATCTACCTGAACCTGTGGGACCACCTGCAGGAGGCTGTGAAC
AACCGGTCCATCCAACCTCCCACCACCGTGGGGACATCATGAACCGCTGGACCCTGCAG
ATGGGCTTCCCGTTCATCACGGTGGATACCAGCACGGGGACCCTTTCCAGGAGCACTTC
CTCCTTGACCCGATTCCAATGTTACCCGCCCTCAGAATTCAACTACGTGTGGATTGTG
CCCATCACATCCATCAGAGATGGCAGACAGCAGCAGGACTACTGGCTGATAGATGTAAGA
GCCAGAACGATCTCTCAGCACATCAGGCAATGAGTGGGTCTGCTGAACCTCAATGTG
ACGGGCTATTACCGGTGAACTACGACGAAGAGAAGTGGAGGAAGATTACAGACTCAGCTG
CAGAGAGACCACTCGGCCATCCCTGTCAATCGGGCACAGATCATTAAATGACGCCTTC
AACCTGGCCAGTCCCATAAGGTCCCTGTCACTCTGGCGTGAACAACACCCTCTTCCTG
ATTGAAGAGAGACAGTACATGCCCTGGGAGGCCCTGAGCAGCCTGAGCTACTTCAAG
CTCATGTTTGACCGCTCCGAGGTCTATGGCCCATGAAGAAGTACCTGAAGAAGCAGGTC
ACACCCCTCTTCACTTCAGAAATAATACCAACAAGTGGAGGGAGATCCCAGAAAAC
CTGATGGACCAGTACAGCGAGGTTAATGCCATCAGCACCCGCTGCTCAAACGGAGTTCCA
GAGTGTGAGGAGATGGTCTCTGGCCTTTTCAAGCAGTGGATGGAGAACCCCAATAATAAC
CCGATCCACCCCAACCTGCGGTCCACCGTCTACTGCAACGCTATCGCCCAGGGCGGGGAG
GAGGAGTGGGACTTCGCCTGGGAGCAGTCCGAAATGCCACACTGGTCAATGAGGCTGAC
AAGCTCCGGGCAGCCCTGGCCTGCAGCAAGAGTTGTGGATCCTGAACAGGTACCTGAGC
TACACCCTGAACCCGGACTTAATCCGGAAGCAGGACGCCACCTTACCATCATCAGCATT
ACCAACAACGTCAATTGGGCAAGGTCTGGTCTGGGACTTTGTCCAGAGCAACTGGAAGAAG
CTTTTTAACGATTATGGTGGTGGCTCGTTCTCCTTCTCCAACCTCATCCAGGCAGTGACA
CGACGATTCTCCACCGAGTATGAGCTGCAGCAGCTGGAGCAGTTCAAGAAGGACAACGAG
GAAACAGGCTTCGGCTCAGGCACCCGGGCCCTGGAGCAAGCCCTGGAGAAGACGAAAGCC
AACATCAAGTGGGTGAAGGAGACAAGGAGGTGGTGTCCAGTGGTTCACAGAAAACAGC
AAATAGTCCCCAGCCCTTGAAGTACCCGGCCCCGATGCAAGGTGCCACATGTGTCCAT
CCCAGCGCTGGTGCAGGCTCCATTCTGGAGCCCGAGGCACCAAGTGTCTCCCTCA
AGGACAAAGTCTCCAGCCACGTTCTCTCTGCCTGTGAGCCAGTCTAGTTCCTGATGACC
CAGGCTGCCTGAGCACCTCCCAGCCCCTGCCCTCATGCCAACCCCGCCCTAGGCCTGGC
ATGGCACCTGTGCCCCAGTGCCTGGGGCTGATCTCAGGGAAGCCAGCTCCAGGGCCAG
ATGAGCAGAAGCTCTCGATGGACAATGAACGGCCTTGCTGGGGCCGCTGTACCCTCT
TTCACCTTTCCCTAAAGACCCCTAAATCTGAGGAATCAACAGGGCAGCAGATCTGTATATT
TTTTTCTAAGAGAAAATGTAATAAAGGATTTCTAGATGAAAAAAAAAAAAAAAAAAAAAC
TCGAC

**5' Read Nucleotide
Sequence:**

>OriGene 5' read for NM_001150 unedited
GGGCGGGGGNANAANACANTCNCCCCCGGGTTCAAAATTGTATACGATCATATAGGG
CGGCCCGGAATCGGCACGAGCCAGTGTGGAGGGGCAGGGACGGCGGGCGCAGCTCGG
AACCCGCCAGGGTCCAGGGTCCAGGTTCCAGCGCCCGGGCCAGCTCTCAAGCAGATC
AATGCAATGCCACCTGGCCGCTTGTCTTGGCCACTGGGCTACAGCCGGAAGCCTGCCCT
TCAGCCCTCGGGCCTGATCCCAGGCCGCTGCAGCCTGTAACCAGACACTGTTTGTCTCC
AGCAGGCACCCCGAGCCAGCTCCACACACCGTTCTGGATCTCCTCTCCCCAGGGCGG
AGCGTGCCCTGCCAGTCCAGCGACCTTCGCCTGTTGGAGCCCTGGTTAATTTTTGCC
AGTCTGCCTGTTGTGGGCTCCTCCCTTTGGGATATAAGCCCGCCTGGGGCTGCTCC
GTTCTCTGCCTGGCTGAGGCTCCCTGAGCCGCTCCCCACCATCACCATGGCCAAGGGC
TTCTATATTTCAAGTCCCTGGGCATCCTGGGATCCTCCTGGCGTGGCAGCCGTGTGC
ACAATCATCGACTGTCAGTGGTGTACTCCAGGAGAAGAACAAGAACGCCAACAGCTCC
CCCGTGGCCTCCACCACCCGTCGCTCAGCCACCACCAACCCGCTCGGCCACCACC
TTGGNACCAAAGTAAGCGTGAATCGTTACCGCTCCCCACAGCTGAAACCCGATTCT
ACCAGGTGACGCTGAGACCGTACCTCACCCCCATGACAGGGGCTGTACGTTNNTAAGG
GCTNCAGCACCGTCCGTTTACCTGCAGGGAGGCCACTGATGTCATCATATCCACAGC
AGAAGCTCAACTACACCTCANCAGGGGCACAGGGTGGTTCTGCGTGGA

**3' Read Nucleotide
Sequence:**

>OriGene 3' read for NM_001150 unedited
CGGGGCCNNNNNNCCTCNNNNANNAAGATTTGAACCCGGCCGATTCTANGATCGGTT
TTTTTTTTTTTTTTTTTTCATCAAAAAACCTTTATTTACATTTTCTTTAGAAAAAAAT
ACAGATCTGCTGCCCTGTTGATTCTCAAATTTAGGGTCTTTAGGAAAGGTGAAAGAGG
GTACAGGGCGGCCCCAGCAAGGCCGTTTATTGTCCATCGAGAGCTTCTGCTCATCTGGC
CCTGGAGCTGGGTTCCCTGAGATCAGCCCGAGGCACTGGGCGACAGGTGCCATGCCAG
GCCTAGGGCGGGTTGGCATGAGGGGCAGGGGCTGGGAGGTGCTCAGGCAGCCTGGGTCA
TCAGGAACTAGACTGGCTCACAGGCAGAGAACGTGGGCTGGAGACTTTGCTCTTGAGG
GGAGGACTGTTGCCTCGGGCTCCAGGAATGGAGGCCCTGCACCAGCCGCTGGGATGGA
CACATGTGGGCACCTTGCATCGGGGCCGGGTGACTTCAAGGGCTGGGACTATTTGCTGT
TTTCTGTGAACCACTGGAGCACCTCCTTGTCTCCTTCAACCACTTGATGTTGGCTT
TCGTCTTCTCCAGGGCTTGCTCCAGGGCCGGGTGCCTGAGCCGAAGCCTGTTTCTCCT
TGNCCTTCTTGAAGTGCCTCAGCTGCTGCAGCTCATACTCGTGGAGAATCGTCGTGTCA
CTGCCTGAATGAGGNTGGAGAAGGAGAACGAGCCACCACATATCGTTAAAAGCTTCTTN
CAGTTGCTCTGGNACAAGTCCNAGACCAGACTTGCCCATGACGNTGNTNGAATGCTGAT
GATGGGAAAGGTGGCGTCTGCTTCCCGGATTAGTCCGGNTNCGGGTGTAGCTCAGGTA
CCCTGTCAGGATCCACCACTCTTTGCTGCAGCCAGGGCTTGCCNNGACTTGCCACCTCAT
GAACACTGTGGCATTTCCGACTGCTCAAGGCGAATCCCACTCTCCTCCCGCTGGGCGAT
G

Restriction Sites:

NotI-NotI

ACCN:

NM_001150

Insert Size:

3750 bp

OTI Disclaimer: 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.

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](#)

RefSeq: [NM_001150.1](#), [NP_001141.1](#)

RefSeq Size: 3494 bp

RefSeq ORF: 2904 bp

Locus ID: 290

UniProt ID: [P15144](#), [A0A024RC61](#), [Q59E93](#)

Domains: Peptidase_M1

Protein Families: Druggable Genome, ES Cell Differentiation/IPS, Protease, Transmembrane

Protein Pathways: Glutathione metabolism, Hematopoietic cell lineage, Metabolic pathways, Renin-angiotensin system

Gene Summary: Aminopeptidase N is located in the small-intestinal and renal microvillar membrane, and also in other plasma membranes. In the small intestine aminopeptidase N plays a role in the final digestion of peptides generated from hydrolysis of proteins by gastric and pancreatic proteases. Its function in proximal tubular epithelial cells and other cell types is less clear. The large extracellular carboxyterminal domain contains a pentapeptide consensus sequence characteristic of members of the zinc-binding metalloproteinase superfamily. Sequence comparisons with known enzymes of this class showed that CD13 and aminopeptidase N are identical. The latter enzyme was thought to be involved in the metabolism of regulatory peptides by diverse cell types, including small intestinal and renal tubular epithelial cells, macrophages, granulocytes, and synaptic membranes from the CNS. This membrane-bound zinc metalloprotease is known to serve as a receptor for the HCoV-229E alphacoronavirus as well as other non-human coronaviruses. This gene has also been shown to promote angiogenesis, tumor growth, and metastasis and defects in this gene are associated with various types of leukemia and lymphoma. [provided by RefSeq, Apr 2020]