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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:	CD13
Synonyms:	APN; CD13; GP150; LAP1; P150; PEPN
Mammalian Cell Selection:	None
Vector:	pCMV6-XL4
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

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>OriGene sequence for NM_001150 edited
GAATTCGGCACGAGCCAGTGCTGGAGGGGCAGGGACGGCGGCGGCGCAGCTCGGAACCCG
CCAGGGTCCAGGGTCCAGGTTCCAGCGCCCGGCGGCCCAGCTCTCAAGCAGATCAATGCA
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CTGCTGTTCGACCCCCTGTCCTCCTCCAGCAGCAACAAGGAGCGGGTGGTCACTGTGATT
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TCGAC

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_001150 unedited
GGGCGGGGGGNANAANACANTCNCCCCCCCCGGGTTCAAAATTGTATACGATCATATAGGG
CGGCCGCGAATCGGCACGAGCCAGTGCTGGAGGGGCAGGGACGGCGGCGGCGCAGCTCGG
AACCCGCCAGGGTCCAGGGTCCAGGTTCCAGCGCCCGGCGGCCCAGCTCTCAAGCAGATC
AATGCAATGCCACCTGGCCGCTTGCTTTGCCCACTGGGCCTACAGCCGGAAGCCTGCCCT
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AGCGTGCCCCTGCCCAGTCCAGCGACCTTCGCCTGTTGGAGCCCTGGTTAATTTTTGCCC
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3' Read Nucleotide Sequence:

>OriGene 3' read for NM_001150 unedited
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ACAGATCTGCTGCCCTGTTGATTCCTCAAATTTAGGGTCTTTAGGGAAAGGTGAAAGAGG
GTACAGGGCGGCCCCCAGCAAGGCCGTTCATTGTCCATCGAGAGCTTCTGCTCATCTGGC
CCTGGAGCTGGGCTTCCCTGAGATCAGCCCCAGGGCACTGGGCGACAGGTGCCATGCCAG
GCCTAGGGCGGGGTTGGCATGAGGGGCAGGGGCTGGGAGGTGCTCAGGCAGCCTGGGTCA
TCAGGAACTAGACTGGCTCACAGGCAGAGAGAACGTGGGCTGGAGACTTTGTCCTTGAGG
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CCCTGTCAGGATCCACCACTCTTTGCTGCAGCCAGGGCTTGCCNGGACTTGCCACCTCAT
GAACACTGTGGCATTTCGGACTGCTCAAGGCGAATCCCACTCTCCTCCCGCCTGGGCGAT
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
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_001150.1, NP_001141.1
RefSeq Size:	3494 bp
RefSeq ORF:	2904 bp
Locus ID:	290
UniProt ID:	P15144
Cytogenetics:	15q26.1
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]