

## Product datasheet for RC204715

### NAPSIN A (NAPSA) (NM\_004851) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	NAPSIN A (NAPSA) (NM_004851) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	NAPSIN A
Synonyms:	KAP; Kdap; NAP1; NAPA; SNAPA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC204715 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGC**C

ATGTCCTCCACCACCGCTGCTGCAACCCCTGCTGCTGCTGCTGCCTCTGCTGAATGTGGAGCCTCCGGGG  
CCACTGATCCGCATCCCTCTTCATCGAGTCCAACCTGGACGCAGGACCCTGAACCTACTGAGGGGATG  
GAGAGAACCAGCAGAGCTCCCAAGTTGGGGGCCCATCCCTGGGGACAAGCCCATCTTCGTACCTCTC  
TCGAACTACAGGGATGTGCAGTATTTGGGAAATTGGGCTGGGAACGCCTCCACAAAATTCACGTGTG  
CCTTTGACTGGCTCCTCCAATCTCTGGTCCCGTCCAGGAGATGCCACTTCTTCAGTGTGCCCTGCTG  
GTACACCACCGATTTGATCCCAAAGCCTCTAGCTCCTTCCAGGCCAATGGGACCAAGTTTGCCATTCAA  
TATGGAAGTGGGCGGGTAGATGGAATCCTGAGCGAGGACAAGCTGACTATTGGTGAATCAAGGGTGCAT  
CAGTGATTTTCGGGGAGGCTCTCTGGGAGCCAGCCTGGTCTTCGCTTTTGCCATTTTGATGGGATATT  
GGGCTCGGTTTTCCATTCTGTCTGTGGAAGGAGTTCGGCCCCGATGGATGTACTGGTGGAGCAGGGG  
CTATTGGATAAGCCTGTCTTCTCTTTACCTCAACAGGGACCCTGAAGAGCCTGATGGAGGAGAGCTGG  
TCCTGGGGGGCTCGGACCCGGCACACTACATCCACCCCTCACCTTCGTGCCAGTCACGGTCCCCGCTA  
CTGGCAGATCCACATGGAGCGTGTGAAGTGGGCCAGGGCTGACTCTCTGTGCCAAGGGCTGTGCTGCC  
ATCCTGGATACGGGCACGTCCCTCATCACAGGACCCACTGAGGAGATCCGGGCCCTGCATGCAGCCATTG  
GGGAATCCCCTTGTGGCTGGGAGTACATCATCCTGTGCTCGGAAATCCCAAAGCTCCCGCAGTCTC  
CTTCTTCTTGGGGGGTCTGGTTAACTCACGGCCATGATTACGTATCCAGACTACTCGAAATGGC  
GTCCGCTCTGCTGTCCGGTTCCAGGCCCTGGATGTCCCTCCGCTGCAGGGCCCTTCTGGATCTCG  
GTGACGTCTTCTGGGACGTATGTGGCGTCTTCGACCGGGGACATGAAGAGCAGCGCCCGGTGGG  
CCTGGCGCGCTCGACTCGCGAGCGGACCTCGGATGGGAGAGACTGCGCAGGCGCAGTTCCCCGGG

**ACGGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC204715 protein sequence  
Red=Cloning site Green=Tags(s)

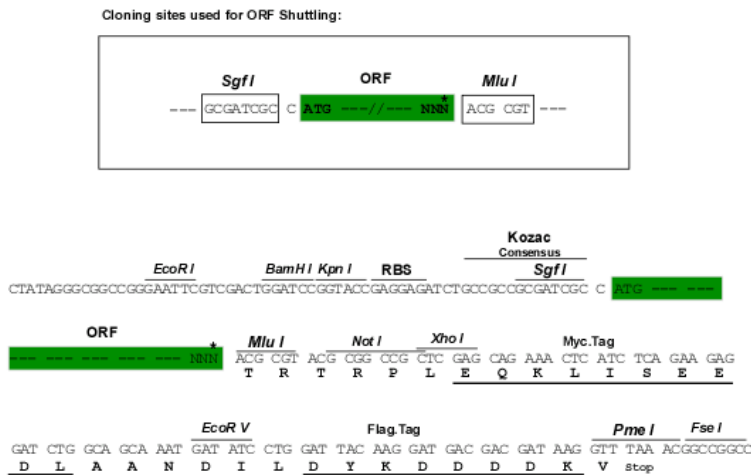
MSPPPLLQPLLLLLPLLNVEPSGATLIRIPLHRVQPGRRTLNLLRGWREPAELPKLGAPSPGDKPIFVPL  
 SNYRDVQYFGEIGLGTTPQNFTVAFDTGSSNLWPSRRCHFFSVCWLHHRFDPKASSSFQANGTKFAIQ  
 YGTGRVDGILSEDKLTIGGIKASVIFGEALWEP SLVFAFAHFDGILGLGFPI LSV EGV RPPMDV LVEQG  
 LLDKPVFSFYLRDPEEPDGGELVLGGSDPAHYIPPLTFVPVTPAYWQIHMERVKVGPGLTLCAGCAA  
 ILDTGSLITGPTEEIRALHAAIGGIPLLAGHEYIILCSEIPKLPVAVSFLGGVWFNLTAHDYVIQTRNG  
 VRLCLSGFQALDVPPPAGPFWILGDVFLGTYVAVFDRGDMKSSARVGLARARTRGADLWGGETAQAQFPG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6178\\_c11.zip](https://cdn.origene.com/chromatograms/mk6178_c11.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_004851

**ORF Size:** 1260 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\\_004851.3](#)

**RefSeq Size:** 1438 bp

**RefSeq ORF:** 1263 bp

**Locus ID:** 9476

**UniProt ID:** [O96009](#)

**Cytogenetics:** 19q13.33

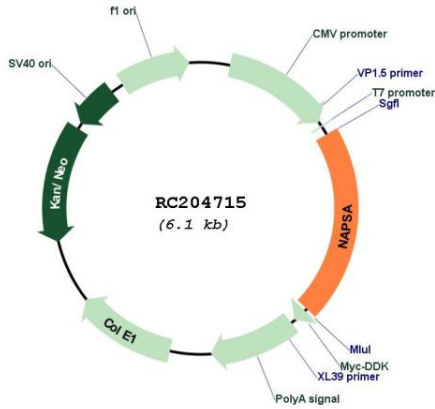
**Protein Families:** Druggable Genome, Protease

**Protein Pathways:** Lysosome

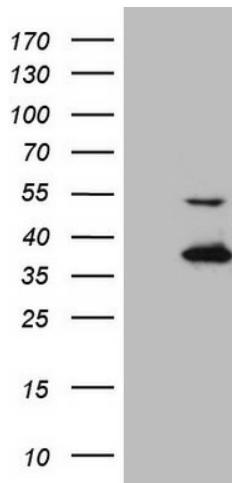
**MW:** 45.4 kDa

**Gene Summary:** This gene encodes a member of the peptidase A1 family of aspartic proteases. The encoded preproprotein is proteolytically processed to generate an activation peptide and the mature protease. The activation peptides of aspartic proteinases function as inhibitors of the protease active site. These peptide segments, or pro-parts, are deemed important for correct folding, targeting, and control of the activation of aspartic proteinase zymogens. The encoded protease may play a role in the proteolytic processing of pulmonary surfactant protein B in the lung and may function in protein catabolism in the renal proximal tubules. This gene has been described as a marker for lung adenocarcinoma and renal cell carcinoma. [provided by RefSeq, Feb 2016]

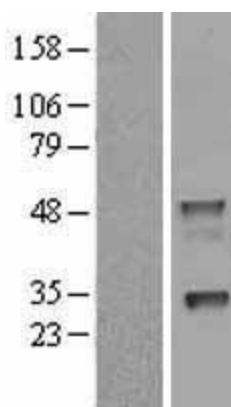
Product images:



Circular map for RC204715



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY NAPSA (Cat# RC204715, 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-NAPSA (Cat# [TA808564])(1:2000). Positive lysates [LY401519] (100ug) and [LC401519] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY401519]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204715 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).