

## Product datasheet for **RG204715**

### **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:	TurboGFP
Symbol:	NAPSIN A
Synonyms:	KAP; Kdap; NAP1; NAPA; SNAPA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG204715 representing NM_004851 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGC**C

ATGTCACCACCGCTGCTGCAACCCCTGCTGCTGCTGCTGCCTCTGCTGAATGTGGAGCCTCCGGGG  
CCACTGATCCGCATCCCTCTTCATCGAGTCAAACCTGGACGCAGGACCCTGAACCTACTGAGGGGATG  
GAGAGAACCAGCAGAGCTCCCAAGTTGGGGGCCCATCCCTGGGGACAAGCCCATCTTCGTACCTCTC  
TCGAACTACAGGGATGTGCAGTATTTGGGAAATTGGGCTGGGAACGCCTCCACAAAATTCACTGTTG  
CCTTTGACTGGCTCCTCAATCTCTGGTCCCGTCCAGGAGATGCCACTTCTCAGTGTGCCCTGCTG  
GTACACCACCGATTTGATCCCAAAGCCTCTAGCTCCTTCCAGGCCAATGGGACCAAGTTTGCCATTCAA  
TATGGAAGTGGGCGGTAGATGGAATCCTGAGCGAGGACAAGCTGACTATTGGTGAATCAAGGGTGCAT  
CAGTGATTTTCGGGGAGGCTCTCTGGGAGCCAGCCTGGTCTTCGCTTTTGCCATTTTGATGGGATATT  
GGGCTCGGTTTTCCATTCTGTCTGTGGAAGGAGTTCGGCCCCGATGGATGTACTGGTGGAGCAGGGG  
CTATTGGATAAGCCTGTCTTCTCCTTTACCTCAACAGGGACCCTGAAGAGCCTGATGGAGGAGAGCTGG  
TCCTGGGGGCTCGGACCCGGCACACTACATCCACCCCTCACCTTCGTGCCAGTCACGGTCCCCGCCTA  
CTGGCAGATCCACATGGAGCGTGTGAAGTGGGCCAGGGCTGACTCTCTGTGCCAAGGGCTGTGCTGCC  
ATCCTGGATACGGGCACGTCCCTCATCACAGGCCACTGAGGAGATCCGGGCCCTGCATGCAGCCATTG  
GGGAATCCCCTTGTGGCTGGGAGTACATCATCCTGTGCTCGGAAATCCCAAAGCTCCCGCAGTCTC  
CTTCTTCTTGGGGGGTCTGGTTAACTCACGGCCATGATTACGTATCCAGACTACTCGAAATGGC  
GTCCGCTCTGCTGTCCGGTTCCAGGCCCTGGATGTCCCTCCGCTGCAGGGCCCTTCTGGATCTCG  
GTGACGTCTTCTGGGACGTATGTGGCGTCTTCGACCGGGGACATGAAGAGCAGCGCCGGTGGG  
CCTGGCGCGCTCGACTCGCGAGCGGACCTCGGATGGGAGAGACTGCGCAGGCGCAGTTCCCCGGG

**ACGGT**ACGGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG204715 representing NM\_004851  
 Red=Cloning site Green=Tags(s)

MSPPLLQPLLLLLPLLNVEPSGATLIRIPLHRVQGRRTLNLLRGWREPAELPKLGAPSPGDKPIFVPL  
 SNYRDVQYFGEIGLGTTPQNFTVAFDTGSSNLWVPSRRCHFFSVCWLHHRFDPKASSSFQANGTKFAIQ  
 YGTGRVDGILSEDKLTIGGIKASVIFGEALWEPSTLVFAFAHFDGILGLGFPILSVEGVRPPMDVLVEQG  
 LLDKPVFSFYLRDPEEPDGGELVLGSDPAHYIPPLTFVPVTPAYWQIHMERVKVGPLTLCAKGCAA  
 ILDTGTSITGTTEEIRALHAAIGGIPLLAGIYIILCSEIPKLPVAVSFLGGVWFNLTAHDYVIQTRNG  
 VRLCLSGFQALDVPPPAGPFWILGDVFLGTYVAVFDRGDMKSSARVGLARARTRGADLWGETAQAQFPG

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**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\\_004851.1](#), [NP\\_004842.1](#)

**RefSeq Size:** 1438 bp

**RefSeq ORF:** 1263 bp

**Locus ID:** 9476

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

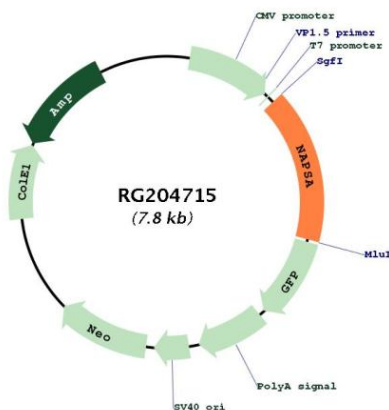
**Cytogenetics:** 19q13.33

**Protein Families:** Druggable Genome, Protease

**Protein Pathways:** Lysosome

**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 RG204715