

## Product datasheet for MR205259

### Asna1 (NM\_019652) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Asna1 (NM_019652) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Asna1
Synonyms:	1810048H22Rik; ArsA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR205259 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCGCGGGGGTGGCCGGGTGGGGGTTGAAGCAGAAGAGTTCGAGGATGCACCTGATGTGGAGCCGC  
TGGAAACCACGCTTAGCAATATCATCGAGCAGCGTAGCCTTAAGTGGATCTTTGTCGGGGCAAGGGTGG  
CGTTGGTAAGACCACCTGCAGCTGCAGCCTGGCAGTCCAGCTGTCGAAGGGACGTGAGAGTGTCTGATC  
ATTTCCACAGACCAGCTCACAACATCTCAGATGCTTTTGACCAGAAGTCTCCAAGGTGCCTACCAAGG  
TCAAAGGCTATGACAACCTCTTTGCTATGGAGATAGACCCAGCCTGGGGTTCAGAGCTCCCCGACGA  
GTTCTTCGAGGAAGACAACATGCTGAGCATGGGCAAGAAGATGATGCAGGAGGCCATGAGCGCCTCCCT  
GGCATCGATGAAGCCATGAGTTATGCTGAGGTCATGAGGCTGGTAAAAGGCATGAACTTCTCAGTGGTAG  
TGTTTCGACACAGCACCCACCGGCCATACACTCAGGCTCCTGAACTTCCCGACCATCGTGGAGAGGGGCT  
GGGCCGCTGATGCAGATCAAGAACCAGATCAGCCCTTCATCTCACAGATGTGCAACATGCTGGGCCTG  
GGGACATGAATGCTGACCAACTGGCCTCAAAGCTAGAAGAGACGTTGCCTGTATCCGATCTGTTAGCG  
AACAGTTCAAGGACCCTGAACAGACAACGTTCACTGTGTGTGCATCGCCGAATCTTGTCTTGTACGA  
GACGGAGCGGCTGATCCAGGAGCTGGCTAAGTGAAGATCGACACCCACAACATCATCGTCAACCAGCTT  
GTCTTCCCTGACCCTGAGAAACCCTGCAAGATGTGTGAGGCCCGACACAAGATCCAGGCCAAGTACCTGG  
ACCAGATGGAAGACCTATATGAAGACTTTCACATTGTAAGCTGCCACTGTTACCTCACGAGGTTGCGGG  
AGCCGACAAAGTCAACACCTTCTCTGCCCTCCTCCTGGAGCCCTACAAGCCCCCAGCACCCAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR205259 protein sequence  
Red=Cloning site Green=Tags(s)

MAAGVAGWGVEAEFEADPDVEPLEPTLSNIEQRSLKWIFVGGKGGVGTTCSCSLAVQLSKGRESVLI  
 ISTDPAHNISDAFDQKFSKVPVKVGYDNLFAMEIDPSLGV AELPDEFF EEDNMLSMGKKMMQEAMSAFP  
 GIDEAMSYAEVMRLVKGMNFSVVVFDAPTGHTLRLNFP TIVERGLGRMLQIKNQISPFISQMCNMLGL  
 GDMNADQLASKLEETLPVIRSVSEQFKDPEQTTFCVCI AEFLSLYETERLIQELAKCKIDTHNIIVNQL  
 VFPDPEKPKMCEARHKIQAKYLDQMEDLYEDFHIVKLP LLLPHEVRGADKVNTFSALLLEPYKPPSTQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



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

**ACCN:** NM\_019652

**ORF Size:** 1047 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\\_019652.1](#), [NP\\_062626.1](#)

**RefSeq Size:** 1280 bp

**RefSeq ORF:** 1047 bp

**Locus ID:** 56495

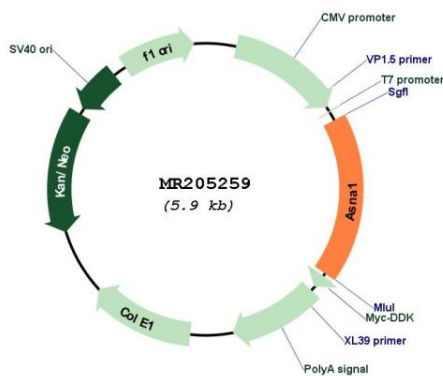
**UniProt ID:** [O54984](#)

**Cytogenetics:** 8 C3

**MW:** 38.8 kDa

**Gene Summary:** ATPase required for the post-translational delivery of tail-anchored (TA) proteins to the endoplasmic reticulum. Recognizes and selectively binds the transmembrane domain of TA proteins in the cytosol. This complex then targets to the endoplasmic reticulum by membrane-bound receptors, where the tail-anchored protein is released for insertion. This process is regulated by ATP binding and hydrolysis. ATP binding drives the homodimer towards the closed dimer state, facilitating recognition of newly synthesized TA membrane proteins. ATP hydrolysis is required for insertion. Subsequently, the homodimer reverts towards the open dimer state, lowering its affinity for the membrane-bound receptor, and returning it to the cytosol to initiate a new round of targeting.[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MR205259