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Product datasheet for RR208953

Asna1 (NM_001100505) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Asna1 (NM_001100505) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Asna1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RR208953 representing NM_001100505 Red=Cloning site Blue=ORF Green=Tags(s) TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGGCGGCGGGGGTGGCCGGGTGGGGGGTTGAAGCAGAAGAGTTCGAGGATGCACCTGACGTGGAGCCAC TGGAACCCACGCTTAGCAATATCATCGAGCAGCGTAGCCTTAAGTGGATCTTCGTCGGGGGCAAAGGAGG CGTTGGTAAGACCACCTGCAGCTGCAGCCTGGCGGTCCAGCTGTCTAAGGGACGGGAGAGTGTTCTCATC ATTTCTACAGACCCAGCTCATAACATTTCAGATGCTTTTGATCAGAAGTTCTCCAAGGTGCCTACCAAGG TCAAAGGCTATGACAACCTCTTTGCTATGGAGATAGACCCCAGCCTGGGCGTTGCAGAGCTCCCCGACGA GTTCTTCGAGGAAGACAACATGCTGAGCATGGGCAAGAAGATGATGCAGGAGGCCATGAGCGCCTTCCCT GGCATCGATGAGGCCATGAGTTATGCTGAGGTCATGAGGCTGGTGAAAGGCATGAACTTCTCAGTGGTGG TGTTCGACACAGCACCCACCGGCCATACACTCAGGCTCCTGAACTTCCCCACCATCGTGGAGCGGGGCCT GGGCCGCCTGATGCAGATCAAGAACCAGATCAGCCCCTTCATCTCACAGATGTGCAACATGCTGGGTCTG GGGGACATGAACGCTGACCAGCTGGCCTCCAAGTTAGAAGAGACCTTGCCCGTCATCCGATCCGTCAGCG AACAGTTCAAGGACCCTGAACAGACGACCTTCATCTGTGTGTGCATCGCCGAGTTTTTGTCCCTGTATGA GACGGAGCGTCTGATCCAGGAGCTGGCCAAGTGCAAGATCGACACCCACAACATCATCGTCAACCAGCTT GTCTTCCCCGACCCTGAGAAACCCTGCAAGATGTGTGAGGCCCGACACAAGATCCAGGCCAAATACCTGG ACCAGATGGAAGACCTCTATGAAGACTTTCACATTGTAAAGCTGCCACTGTTACCTCACGAGGTTCGGGG AGCCGACAAAGTCAACACCTTCTCTGCCCTCCTCCTGGAGCCCTACAAGCCCCCCAGCACCCAG ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

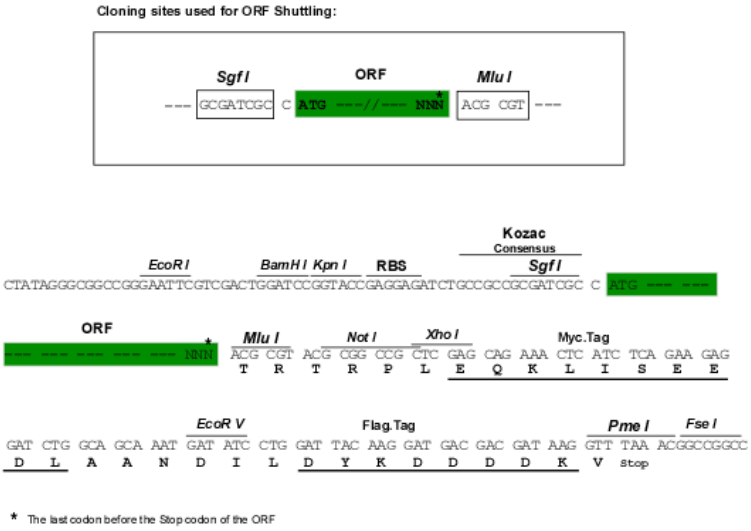
>RR208953 representing NM_001100505
Red=Cloning site Green=Tags(s)

MAAGVAGWGVEAEEFEDAPDVEPLEPTLSNIIEQRSLKWIFVGGKGGVGKTTCSCSLAVQLSKGRESVLI
ISTDPAHNISDAFDQKFSKVPTKVKGYDNLFAMEIDPSLGVAELPDEFFEEDNMLSMGKKMMQEAMSAFP
GIDEAMSYAEVMRLVKGMNFSVVVFDTAPTGHTLRLLNFPTIVERGLGRLMQIKNQISPFISQMCNMLGL
GDMNADQLASKLEETLPVIRSVSEQFKDPEQTTFICVCIAEFLSLYETERLIQELAKCKIDTHNIIVNQL
VFPDPEKPCKMCEARHKIQAKYLDQMEDLYEDFHIVKLPLLPHEVRGADKVNTFSALLLEPYKPPSTQ

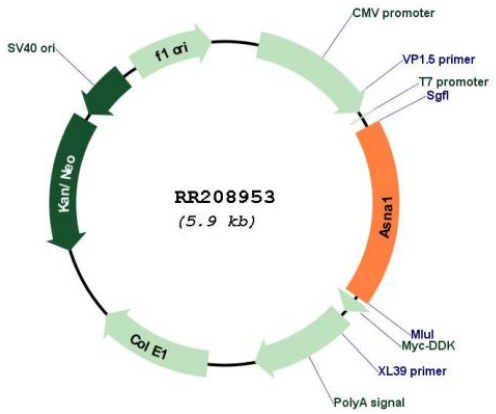
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001100505

ORF Size:	1044 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_001100505.1, NP_001093975.1
RefSeq Size:	1365 bp
RefSeq ORF:	1047 bp
Locus ID:	288919
UniProt ID:	G3V9T7
Cytogenetics:	19q11
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 GET1/WRB and CAMLG/GET2, 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 GET1-CAMLG receptor, and returning it to the cytosol to initiate a new round of targeting. [UniProtKB/Swiss-Prot Function]