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Product datasheet for RN208953

Asna1 (NM_001100505) Rat Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: Asna1 (NM_001100505) Rat Untagged Clone

Tag: Tag Free

Symbol: Asna1

Vector: pCMV6-Entry (PS100001)

E. coli Selection: Kanamycin (25 ug/mL)

Cell Selection: Neomycin

Fully Sequenced ORF:

>RN208953 representing NM_001100505
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCGGCGGGGGTGGCCGGGTGGGGGGTTGAAGCAGAAGAGTTCGAGGATGCACCTGACGTGGAGCCAC
TGGAACCCACGCTTAGCAATATCATCGAGCAGCGTAGCCTTAAGTGGATCTTCGTCGGGGGCAAAGGAGG
CGTTGGTAAGACCACCTGCAGCTGCAGCCTGGCGGTCCAGCTGTCTAAGGGACGGGAGAGTGTTCTCATC
ATTTCTACAGACCCAGCTCATAACATTTCAGATGCTTTTGATCAGAAGTTCTCCAAGGTGCCTACCAAGG
TCAAAGGCTATGACAACCTCTTTGCTATGGAGATAGACCCCAGCCTGGGCGTTGCAGAGCTCCCCGACGA
GTTCTTCGAGGAAGACAACATGCTGAGCATGGGCAAGAAGATGATGCAGGAGGCCATGAGCGCCTTCCCT
GGCATCGATGAGGCCATGAGTTATGCTGAGGTCATGAGGCTGGTGAAAGGCATGAACTTCTCAGTGGTGG
TGTTCGACACAGCACCCACCGGCCATACACTCAGGCTCCTGAACTTCCCCACCATCGTGGAGCGGGGCCT
GGGCCGCCTGATGCAGATCAAGAACCAGATCAGCCCCTTCATCTCACAGATGTGCAACATGCTGGGTCTG
GGGGACATGAACGCTGACCAGCTGGCCTCCAAGTTAGAAGAGACCTTGCCCGTCATCCGATCCGTCAGCG
AACAGTTCAAGGACCCTGAACAGACGACCTTCATCTGTGTGTGCATCGCCGAGTTTTTGTCCCTGTATGA
GACGGAGCGTCTGATCCAGGAGCTGGCCAAGTGCAAGATCGACACCCACAACATCATCGTCAACCAGCTT
GTCTTCCCCGACCCTGAGAAACCCTGCAAGATGTGTGAGGCCCGACACAAGATCCAGGCCAAATACCTGG
ACCAGATGGAAGACCTCTATGAAGACTTTCACATTGTAAAGCTGCCACTGTTACCTCACGAGGTTCGGGG
AGCCGACAAAGTCAACACCTTCTCTGCCCTCCTCCTGGAGCCCTACAAGCCCCCCAGCACCCAGTAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: NM_001100505

Insert Size: 1047 bp

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OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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

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]