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C22orf32 Rabbit pAb

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Catalog # AP94087

Product Information

Application	WB
Primary Accession	Q9H4I9
Reactivity	Human
Predicted	Rat, Dog, Mouse, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	11441
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human C22orf32
Epitope Specificity	1-60/107
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Mitochondrion (Potential). Membrane; Single-pass membrane protein (Potential).
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Chromosome 22 contains over 500 genes and about 49 million bases. Being the second smallest human chromosome, 22 contains a surprising variety of interesting genes. Phelan-McDermid syndrome, Neurofibromatosis type 2 and autism are associated with chromosome 22. A schizophrenia susceptibility locus has been identified on chromosome 22 and studies show that 22q11 deletion symptoms include a high incidence of schizophrenia. Translocations between chromosomes 9 and 22 may lead to the formation of the Philadelphia Chromosome and the subsequent production of the novel fusion protein, BCR-Abl, a potent cell proliferation activator found in several types of leukemia. The C22orf32 gene product has been provisionally designated C22orf32 pending further characterization

Additional Information

Gene ID	91689
Other Names	Essential MCU regulator, mitochondrial, Single-pass membrane protein with aspartate-rich tail 1, mitochondrial {ECO:0000312|HGNC:HGNC:25055}, SMDT1 (HGNC:25055)
Dilution	WB=1:500-2000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody

is stable for at least two weeks at 2-4 °C.

Protein Information

Name SMDT1 (HGNC:25055)

Function Essential regulatory subunit of the mitochondrial calcium uniporter complex (uniplex), a complex that mediates calcium uptake into mitochondria (PubMed:24231807, PubMed:26774479, PubMed:27099988, PubMed:30454562, PubMed:31080062, PubMed:32315830, PubMed:32494073, PubMed:32762847, PubMed:32790952, PubMed:33296646). Required to bridge the calcium-sensing proteins MICU1 with the calcium-conducting subunit MCU (PubMed:24231807, PubMed:30454562, PubMed:32494073, PubMed:32762847, PubMed:32790952). Acts by mediating activation of MCU and retention of MICU1 to the MCU pore, in order to ensure tight regulation of the uniplex complex and appropriate responses to intracellular calcium signaling (PubMed:27099988, PubMed:31080062, PubMed:32315830, PubMed:33296646).

Cellular Location Mitochondrion inner membrane; Single-pass membrane protein. Note=MAIP1 is required to assist sorting of EMRE/SMDT1 into mitochondrion by protecting EMRE/SMDT1 against protein degradation by YME1L1, thereby ensuring SMDT1/EMRE maturation by the mitochondrial processing peptidase (PMPCA and PMPCB) (PubMed:27642048).

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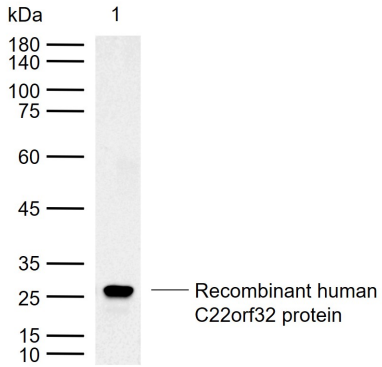
Images



Sample:
Lane 1: Recombinant human C22orf32 protein, N-Trx-His(AP94087)
Primary: Anti-C22orf32 (AP94087) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 7 kDa
Observed band size: 27 kDa