10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

MARCH5 Rabbit pAb

Catalog # AP98531

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q9NX47
Other Accession	Q9NX47
Reactivity	Human, Mouse
Predicted	Rat, Chicken, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	31232
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human MARCH5
Epitope Specificity	1-100/278
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Contains 1 RING-CH-type zinc finger.
SUBUNIT	Monomer and homodimer. Interacts with MFN1, MFN2, DNM1L and FIS1.
Post-translational modifications	Autoubiquitinated leading to degradation (short half-life).
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	MARCH5 is a member of the E3 ubiquitin-protein ligase family. This mitochonrial E3 ubiquitin-protein ligase plays an importnat role in controlling the morphology of the mitochondria. E3 ubiquitin ligases accept ubiquitin from an E2 ubiquitin-conjugating enzyme in the form of a thioester and then directly transfer the ubiquitin to targeted substrates. MARCH5 has been shown to interact with MTFN2 and ubiquitinated forms of DRP1.

Additional Information

Gene ID	54708
Other Names	MARCH-V; MARCH5; MITOL; RNF153; 1810015H18Rik; 2310008I22Rik; 2700055A20Rik; 5730499H23Rik; E130202O05Rik; Marchv; MARH5_HUMAN; MARCHF5; Membrane-associated RING finger protein 5; Membrane-associated RING-CH protein V (MARCH-V); Mitochondrial ubiquitin ligase (MITOL); RING finger protein 153; RING-type E3 ubiquitin transferase MARCHF5; 2.3.2.27; membrane associated ring-CH-type finger 5; membrane-associated ring finger (C3HC4) 5; mitochondrial ubiquitin ligase; E3 ubiquitin-protein ligase MARCHF5
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:50-200

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	MARCHF5 (HGNC:26025)
Synonyms	MARCH5, RNF153
Function	Mitochondrial E3 ubiquitin-protein ligase that plays a crucial role in the control of mitochondrial morphology by acting as a positive regulator of mitochondrial fission and as an important regulator of immune response (PubMed:16874301, PubMed:17606867, PubMed:26246171, PubMed:31881323). Plays a crucial role in maintaining mitochondrial homeostasis by regulating the dynamics of mitochondria through the ubiquitination of key proteins involved in fission and fusion such as FIS1, DNM1L and MFN1 (PubMed:16874301, PubMed:17606867). Acts as a critical determinant of mitotic apoptosis through both MCL1- dependent and -independent pathways (By similarity). Turns off persistent immune signaling by degrading oligomeric complexes of retinoic acid-inducible gene I/DDX58 and mitochondrial antiviral- signaling protein/MAVS formed upon RNA virus infection (PubMed:26246171, PubMed:31881323, PubMed:40071916). Promotes STING- mediated type-I interferon production via 'Lys-63'-linked ubiquitination of STING1 thereby preserving its activity and preventing the formation of inactive STING1 polymers (PubMed:37916870). Plays also an essential role in the formation of PEX3-containing vesicles in the de novo biogenesis of peroxisomes from mitochondria (PubMed:39423820, PubMed:39423819). Acts as a regulator of NLRP3 inflammasome activation on the mitochondria by mediating the 'Lys-27'-linked polyubiquitination of NLRP3, positively regulating the NLRP3-NEK7 complex formation and NLRP3 oligomerization (PubMed:37575012).
Cellular Location	Mitochondrion outer membrane; Multi-pass membrane protein. Endoplasmic reticulum membrane; Multi-pass membrane protein. Peroxisome membrane. Note=Authors show that the protein can be detected in endoplasmic reticulum (PubMed:14722266). Authors (PubMed:16874301) show its presence only in mitochondria (PubMed:16874301).
Tissue Location	Expressed in brain, heart, liver, lung, spleen, stomach, testis, skeletal and muscle.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.