

**MARCH5 Antibody (N-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP5677a**

**Specification**

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**MARCH5 Antibody (N-term) - Product Information**

Application	WB, IHC-P-Leica,E
Primary Accession	<a href="#">Q9NX47</a>
Other Accession	<a href="#">Q6GM44</a> , <a href="#">Q3KNM2</a> , <a href="#">Q5ZJ41</a> , <a href="#">Q3ZC24</a> , <a href="#">NP_060294</a>
Reactivity	Human, Mouse
Predicted	Bovine, Chicken, Xenopus
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	4-32

**MARCH5 Antibody (N-term) - Additional Information**

**Gene ID** 54708

**Other Names**

E3 ubiquitin-protein ligase MARCH5, 632-, Membrane-associated RING finger protein 5, Membrane-associated RING-CH protein V, MARCH-V, Mitochondrial ubiquitin ligase, MITOL, RING finger protein 153, MARCH5, RNF153

**Target/Specificity**

This MARCH5 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 4-32 amino acids from the N-terminal region of human MARCH5.

**Dilution**

WB~~1:1000  
IHC-P-Leica~~1:500  
E~~Use at an assay dependent concentration.

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

MARCH5 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**MARCH5 Antibody (N-term) - 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](#)). 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**

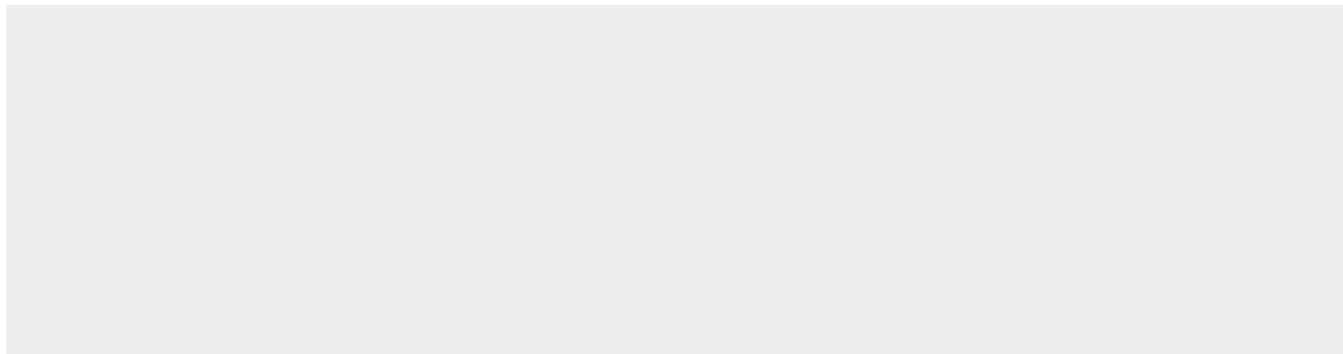
Expressed in brain, heart, liver, lung, spleen, stomach, testis, skeletal and muscle.

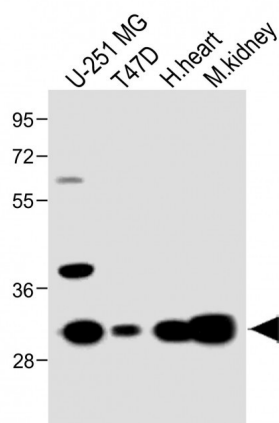
### **MARCH5 Antibody (N-term) - Protocols**

Provided below are standard protocols that you may find useful for product applications.

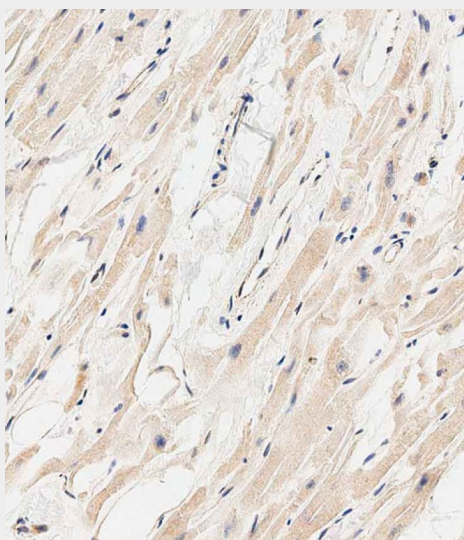
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### **MARCH5 Antibody (N-term) - Images**





All lanes : Anti-MARCH5 Antibody (N-term) at 1:1000 dilution Lane 1: U-251 MG whole cell lysate Lane 2: T47D whole cell lysate Lane 3: Human heart lysate Lane 4: Mouse kidney lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 31 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Immunohistochemical analysis of paraffin-embedded human heart tissue using AP5677A performed on the Leica® BOND RXm. Tissue was fixed with formaldehyde at room temperature, antigen retrieval was by heat mediation with a EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:500) for 1 hours at room temperature. A undiluted biotinylated CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.

### **MARCH5 Antibody (N-term) - Background**

MARCH5 is a ubiquitin ligase of the mitochondrial outer membrane that plays a role in the control of mitochondrial morphology by regulating mitofusin-2 (MFN2; MIM 608507) and DRP1 (DNM1L; MIM 603850) (Nakamura et al., 2006 [PubMed 16936636]).

### **MARCH5 Antibody (N-term) - References**

Yonashiro, R., et al. Mol. Biol. Cell 20(21):4524-4530(2009) Karbowski, M., et al. J. Cell Biol. 178(1):71-84(2007) Nakamura, N., et al. EMBO Rep. 7(10):1019-1022(2006)

### **MARCH5 Antibody (N-term) - Citations**

- [Hepatitis B virus X protein activates E3 ubiquitin ligase Siah-1 to control virus propagation via a negative feedback loop](#)