

MARCH2 (G-12): sc-131181

BACKGROUND

Ubiquitination is an important mechanism through which three classes of enzymes act in concert to target short-lived or abnormal proteins for destruction. The three classes of enzymes involved in ubiquitination are the ubiquitin-activating enzymes (E1s), the ubiquitin-conjugating enzymes (E2s) and the ubiquitin-protein ligases (E3s). MARCH2 (membrane-associated RING finger (C3HC4) 2), also known as RNF172 or HSPC240, is a 246 amino acid multi-pass membrane protein that localizes to the endoplasmic reticulum and contains one RING-CH-type zinc finger. Expressed in a variety of tissues, MARCH2 functions as an E3 ubiquitin-protein ligase that is thought to mediate the ubiquitination and subsequent degradation of CD71 and B7-2 and may be involved in endosomal protein trafficking.

REFERENCES

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2. Barteel, E., et al. 2004. Downregulation of major histocompatibility complex class I by human ubiquitin ligases related to viral immune evasion proteins. *J. Virol.* 78: 1109-1120.
3. Nakamura, N., et al. 2005. MARCH2 is a Syntaxin 6-binding protein involved in endosomal trafficking. *Mol. Biol. Cell* 16: 1696-1710.
4. Nakamura, N., et al. 2006. MARCH5 is a novel mitofusin 2- and DRP1-binding protein able to change mitochondrial morphology. *EMBO Rep.* 7: 1019-1022.
5. Fukuda, H., et al. 2006. MARCH3 is a novel component of endosomes with properties similar to those of MARCH2. *J. Biochem.* 139: 137-145.
6. Cao, Z., et al. 2008. DLG1 is an anchor for the E3 ligase MARCH2 at sites of cell-cell contact. *Cell. Signal.* 20: 73-82.

CHROMOSOMAL LOCATION

Genetic locus: MARCH2 (human) mapping to 19p13.2; March2 (mouse) mapping to 17 B1.

SOURCE

MARCH2 (G-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MARCH2 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-131181 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

MARCH2 (G-12) is recommended for detection of MARCH2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other MARCH family members.

MARCH2 (G-12) is also recommended for detection of MARCH2 in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for MARCH2 siRNA (h): sc-97543, MARCH2 siRNA (m): sc-149266, MARCH2 shRNA Plasmid (h): sc-97543-SH, MARCH2 shRNA Plasmid (m): sc-149266-SH, MARCH2 shRNA (h) Lentiviral Particles: sc-97543-V and MARCH2 shRNA (m) Lentiviral Particles: sc-149266-V.

Molecular Weight of MARCH2: 27 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.