

Katanin p60 A1 (M-13): sc-109299

BACKGROUND

Microtubules are polymers of α and β subunits that form the mitotic spindle and assist in the organization of membranous organelles during interphase. Katanin p60 A1, also known as KATNA1, is a 491 amino acid protein that belongs to the AAA ATPase family and is involved in microtubule regulation. Localized to the cytoplasm and to the centrosome, Katanin p60 A1 functions to sever and disassemble microtubules in an ATP-dependent manner, thus promoting the rapid reorganization of cellular microtubule arrays and playing an important role in microtubule release from the centrosome after nucleation. Katanin p60 A1, which exists as two alternatively spliced isoforms, can homo-oligomerize into hexameric rings whose activity is stimulated by the presence of microtubules.

REFERENCES

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- Ahmad, F.J., Yu, W., McNally, F.J. and Baas, P.W. 1999. An essential role for Katanin in severing microtubules in the neuron. *J. Cell Biol.* 145: 305-315.
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CHROMOSOMAL LOCATION

Genetic locus: KATNA1 (human) mapping to 6q25.1; *Katna1* (mouse) mapping to 10 A1.

SOURCE

Katanin p60 A1 (M-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Katanin p60 A1 of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-109299 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Katanin p60 A1 (M-13) is recommended for detection of Katanin p60 A1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Katanin p60 A1 siRNA (h): sc-95345, Katanin p60 A1 siRNA (m): sc-146341, Katanin p60 A1 shRNA Plasmid (h): sc-95345-SH, Katanin p60 A1 shRNA Plasmid (m): sc-146341-SH, Katanin p60 A1 shRNA (h) Lentiviral Particles: sc-95345-V and Katanin p60 A1 shRNA (m) Lentiviral Particles: sc-146341-V.

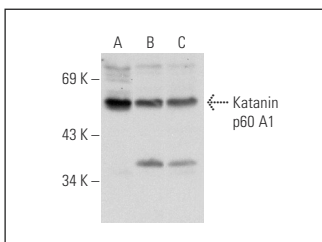
Molecular Weight of Katanin p60 A1: 60 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or SK-N-MC whole cell lysate: sc-2237.

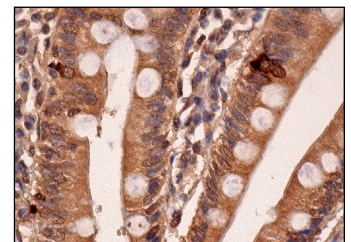
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



Katanin p60 A1 (M-13): sc-109299. Western blot analysis of Katanin p60 A1 expression in 293T (A), HeLa (B) and SK-N-MC (C) whole cell lysates.



Katanin p60 A1 (M-13): sc-109299. Immunoperoxidase staining of formalin fixed, paraffin-embedded human small intestine tissue showing cytoplasmic and nuclear staining of glandular cells.

STORAGE

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

RESEARCH USE

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