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

KD-Validated Anti-Katanin catalytic subunit A1 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1481

Specification

KD-Validated Anti-Katanin catalytic subunit A1 Rabbit Monoclonal Antibody - Product Information

Application	**WB, FC**
Primary Accession	O75449
Reactivity	**Human**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 56 kDa, observed, 49 kDa KDa**
Gene Name	**KATNA1**
Aliases	**KATNA1; Katanin Catalytic Subunit A1; Katanin P60 (ATPase Containing) Subunit A 1; Katanin P60 ATPase-Containing Subunit A1; Katanin P60 Subunit A1; P60 Katanin; Katanin P60 (ATPase-Containing) Subunit A 1; EC 5.6.1.1; EC 3.6.4.3**
Immunogen	**A synthesized peptide derived from human p60 katanin**

KD-Validated Anti-Katanin catalytic subunit A1 Rabbit Monoclonal Antibody - Additional Information

Gene ID	**11104**

Other Names
Katanin p60 ATPase-containing subunit A1 {ECO:0000255|HAMAP-Rule:MF_03023}, Katanin p60 subunit A1 {ECO:0000255|HAMAP-Rule:MF_03023}, 5.6.1.1 {ECO:0000255|HAMAP-Rule:MF_03023}, p60 katanin {ECO:0000255|HAMAP-Rule:MF_03023}, KATNA1 {ECO:0000255|HAMAP-Rule:MF_03023}

KD-Validated Anti-Katanin catalytic subunit A1 Rabbit Monoclonal Antibody - Protein Information

Name KATNA1 {ECO:0000255|HAMAP-Rule:MF_03023}

Function
Catalytic subunit of a complex which severs microtubules in an ATP-dependent manner. Microtubule severing may promote rapid reorganization of cellular microtubule arrays and the release of microtubules from the centrosome following nucleation. Microtubule release from the mitotic spindle poles may allow depolymerization of the microtubule end proximal to the spindle pole, leading to poleward microtubule flux and poleward motion of chromosome. Microtubule release within the cell body of neurons may be required for their transport into neuronal processes by microtubule-dependent motor proteins. This transport is required for axonal growth.

Cellular Location

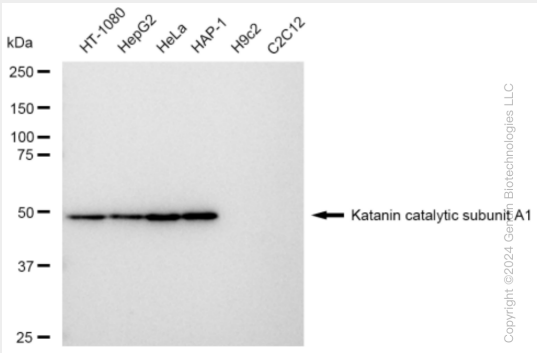
Cytoplasm. Midbody. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome {ECO:0000255|HAMAP-Rule:MF_03023} Cytoplasm, cytoskeleton, spindle pole. Cytoplasm, cytoskeleton, spindle. Note=Predominantly cytoplasmic (PubMed:9658175). Localized diffusely in the cytoplasm during the interphase (PubMed:10751153). During metaphase is localized throughout the cell and more widely dispersed than the microtubules. In anaphase and telophase is localized at the midbody region (PubMed:19261606). Also localized to the interphase centrosome and the mitotic spindle poles (By similarity). Enhanced recruitment to the mitotic spindle poles requires microtubules and interaction with KATNB1 (PubMed:10751153). Localizes within the cytoplasm, partially overlapping with microtubules, in interphase and to the mitotic spindle and spindle poles during mitosis (PubMed:26929214). {ECO:0000255|HAMAP-Rule:MF_03023, ECO:0000269|PubMed:10751153, ECO:0000269|PubMed:19261606, ECO:0000269|PubMed:26929214, ECO:0000269|PubMed:9658175}

KD-Validated Anti-Katanin catalytic subunit A1 Rabbit Monoclonal Antibody - Protocols

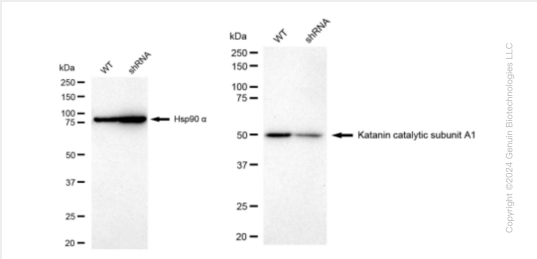
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

KD-Validated Anti-Katanin catalytic subunit A1 Rabbit Monoclonal Antibody - Images



Western blotting analysis using anti-Katanin catalytic subunit A1 antibody (Cat#AGI1481). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-Katanin catalytic subunit A1 antibody (Cat#AGI1481, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-Katanin catalytic subunit A1 antibody (Cat#AGI1481).

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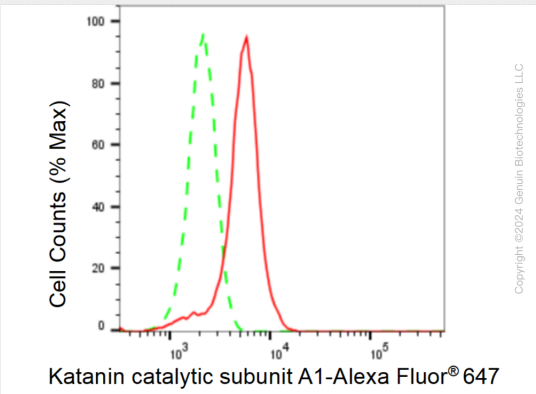
Katanin catalytic subunit A1 expression in wild type (WT) and Katanin catalytic subunit A1 shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-Katanin catalytic subunit A1 antibody (Cat#AGI1481, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of Katanin catalytic subunit A1 expression in HeLa cells using Katanin catalytic subunit A1 antibody (Cat#AGI1481, 1:2,000). Green, isotype control; red, Katanin catalytic subunit A1.