

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Katanin p60 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human Katanin p60 subunit A-like 2 is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 717705
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human Katanin p60 Asp308-Tyr378 Accession # O75449
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Immunohistochemistry Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

KATNA1 (Katanin [Japanese word for sword] p60 ATPase-containing subunit A1; also Katanin p60) is a 55-60 kDa member of the VPS4 subfamily, AAA ATPase family of molecules. It is ubiquitously expressed and is recognized to sever microtubules, allowing for their reorganization during cell division and migration. KATNA1 is most effective on nonacetylated, non-tau binding microtubules. In general, KATNA1 activity is regulated by binding to KATNB1/katanin p80, which potentiates KATNA1 action. However, the relationship is complex, and governed by the local p60:p80 ratio. Human KATNA1 is 491 amino acids (aa) in length. It contains a p80 interaction segment (aa 1-29), followed by a microtubule interaction region (aa 30-185), an ATPase domain (aa 239-381), and an oligomerization region (aa 455-489). KATNA1 is phosphorylated on Ser170. There is one isoform variant that shows a deletion of aa 168-243 coupled to a four aa substitution for aa 384-491. Over aa 308-378, human KATNA1 shares 97% aa identity with mouse KATNA1.

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc., and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.