

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Katanin p60 in direct ELISAs.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human Katanin p60 Asp308-Tyr378 Accession # O75449
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 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.

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