Human Katanin p60 Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF7100

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Katanin p60 in direct ELISAs.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human Katanin p60 Asp308-Tyr378 Accession # O75449
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

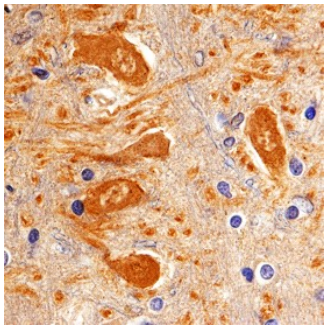
APPLICATIONS

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.*

	Recommended Concentration	Sample
Immunohistochemistry	5-15 µg/mL	See Below

DATA

Immunohistochemistry



Katanin p60 in Human Brain. Katanin p60 was detected in immersion fixed paraffin-embedded sections of human brain (globus pallidus) using Sheep Anti-Human Katanin p60 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7100) at 3 µg/mL overnight at 4 °C. Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using the Anti-Sheep HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS019) and counter-stained with hematoxylin (blue). Specific staining was localized to neuronal cell bodies and processes. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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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