

**RANGAP1 Antibody**  
**Purified Mouse Monoclonal Antibody**  
**Catalog # AO1960a****Specification****RANGAP1 Antibody - Product Information**

Application	E, WB
Primary Accession	<a href="#">P46060</a>
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	63.5kDa KDa

**Description**

This gene encodes a protein that associates with the nuclear pore complex and participates in the regulation of nuclear transport. The encoded protein interacts with Ras-related nuclear protein 1 (RAN) and regulates guanosine triphosphate (GTP)-binding and exchange. Alternative splicing results in multiple transcript variants.

**Immunogen**

Purified recombinant fragment of human RANGAP1 (AA: 359-587) expressed in E. Coli.

**Formulation**

Purified antibody in PBS with 0.05% sodium azide.

**RANGAP1 Antibody - Additional Information**

**Gene ID** 5905

**Other Names**

Ran GTPase-activating protein 1, RanGAP1, RANGAP1, KIAA1835, SD

**Dilution**

E~~1/10000

WB~~1/500 - 1/2000

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

RANGAP1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**RANGAP1 Antibody - Protein Information**

**Name** RANGAP1

## Synonyms KIAA1835, SD

### Function

GTPase activator for RAN (PubMed:<a href="http://www.uniprot.org/citations/8146159" target="\_blank">8146159</a>, PubMed:<a href="http://www.uniprot.org/citations/8896452" target="\_blank">8896452</a>, PubMed:<a href="http://www.uniprot.org/citations/16428860" target="\_blank">16428860</a>). Converts cytoplasmic GTP-bound RAN to GDP-bound RAN, which is essential for RAN-mediated nuclear import and export (PubMed:<a href="http://www.uniprot.org/citations/8896452" target="\_blank">8896452</a>, PubMed:<a href="http://www.uniprot.org/citations/27160050" target="\_blank">27160050</a>). Mediates dissociation of cargo from nuclear export complexes containing XPO1, RAN and RANBP2 after nuclear export (PubMed:<a href="http://www.uniprot.org/citations/27160050" target="\_blank">27160050</a>).

### Cellular Location

Cytoplasm. Nucleus, nucleoplasm. Nucleus envelope. Chromosome, centromere, kinetochore. Cytoplasm, cytoskeleton, spindle. Note=Cytoplasmic during interphase Detected at the nuclear envelope during interphase (PubMed:11854305, PubMed:15037602). Targeted to the nuclear pores after sumoylation (PubMed:11854305). During mitosis, associates with mitotic spindles, but is essentially not detected at the spindle poles (PubMed:11854305, PubMed:15037602). Association with kinetochores appears soon after nuclear envelope breakdown and persists until late anaphase (PubMed:11854305). Mitotic location also requires sumoylation (PubMed:11854305).

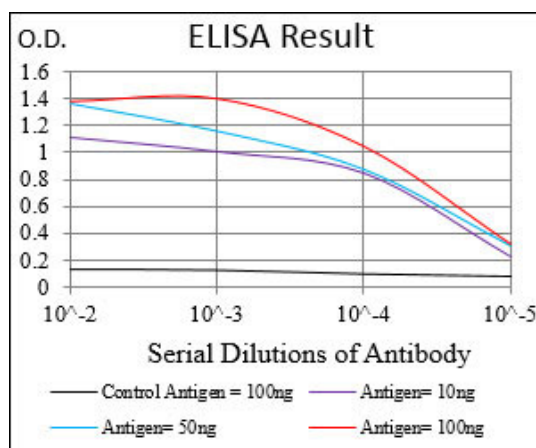
### Tissue Location

Highly expressed in brain, thymus and testis.

## RANGAP1 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 Cytometry](#)
- [Cell Culture](#)



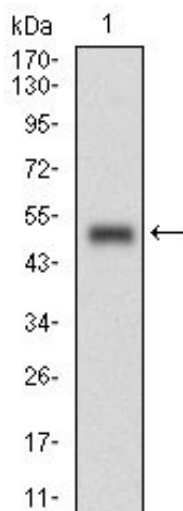


Figure 1: Western blot analysis using RANGAP1 mAb against human RANGAP1 (AA: 359-587) recombinant protein. (Expected MW is 51.4 kDa)

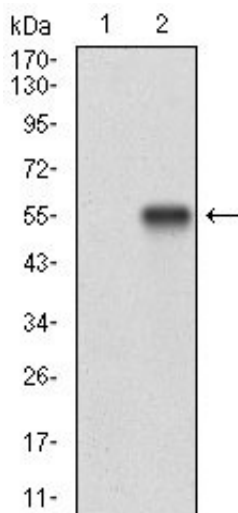


Figure 2: Western blot analysis using RANGAP1 mAb against HEK293 (1) and RANGAP1 (AA: 359-587)-hlgGFc transfected HEK293 (2) cell lysate.

### RANGAP1 Antibody - Background

PIWIL4 belongs to the Argonaute family of proteins, which function in development and maintenance of germline stem cells ; ;

### RANGAP1 Antibody - References

1. J Cell Biol. 2012 Feb 20;196(4):435-50.
2. Cancer Res. 2011 Jul 15;71(14):4968-76.