

**RANGAP1 Antibody (N-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP13776a****Specification**

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**RANGAP1 Antibody (N-term) - Product Information**

Application	IHC-P, WB,E
Primary Accession	<a href="#">P46060</a>
Other Accession	<a href="#">NP_002874.1</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	63542
Antigen Region	20-49

**RANGAP1 Antibody (N-term) - Additional Information****Gene ID** 5905**Other Names**

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

**Target/Specificity**

This RANGAP1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 20-49 amino acids from the N-terminal region of human RANGAP1.

**Dilution**

IHC-P~~1:10~50

WB~~1:1000

E~~Use at an assay dependent concentration.

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

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

**Precautions**

RANGAP1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**RANGAP1 Antibody (N-term) - Protein Information****Name** RANGAP1

**Synonyms** KIAA1835, SD

**Function** GTPase activator for RAN (PubMed:[16428860](#), PubMed:[8146159](#), PubMed:[8896452](#)). Converts cytoplasmic GTP-bound RAN to GDP-bound RAN, which is essential for RAN-mediated nuclear import and export (PubMed:[27160050](#), PubMed:[8896452](#)). Mediates dissociation of cargo from nuclear export complexes containing XPO1, RAN and RANBP2 after nuclear export (PubMed:[27160050](#)).

**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).

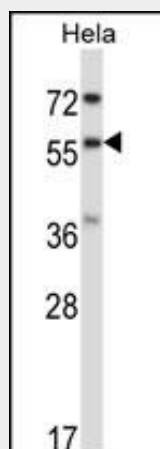
**Tissue Location**

Highly expressed in brain, thymus and testis.

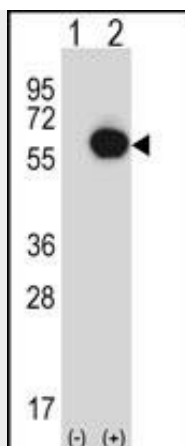
**RANGAP1 Antibody (N-term) - Protocols**

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

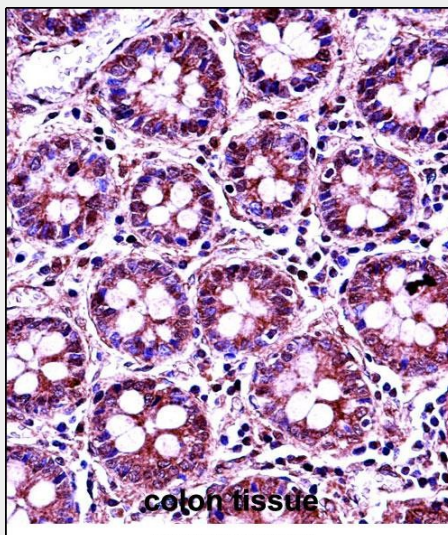
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**RANGAP1 Antibody (N-term) - Images**

RANGAP1 Antibody (N-term) (Cat. #AP13776a) western blot analysis in HeLa cell line lysates (35ug/lane). This demonstrates the RANGAP1 antibody detected the RANGAP1 protein (arrow).



Western blot analysis of RANGAP1 (arrow) using rabbit polyclonal RANGAP1 Antibody (N-term) (Cat. #AP13776a). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the RANGAP1 gene.



RANGAP1 Antibody (N-term) (Cat. #AP13776a) immunohistochemistry analysis in formalin fixed and paraffin embedded human colon tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of RANGAP1 Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.

### **RANGAP1 Antibody (N-term) - Background**

RanGAP1, is a homodimeric 65-kD polypeptide that specifically induces the GTPase activity of RAN, but not of RAS by over 1,000-fold. RanGAP1 is the immediate antagonist of RCC1, a regulator molecule that keeps RAN in the active, GTP-bound state. The RANGAP1 gene encodes a 587-amino acid polypeptide. The sequence is unrelated to that of GTPase activators for other RAS-related proteins, but is 88% identical to Fug1, the murine homolog of yeast Rna1p. RanGAP1 and RCC1 control RAN-dependent transport between the nucleus and cytoplasm. RanGAP1 is a key regulator of the RAN GTP/GDP cycle.

### **RANGAP1 Antibody (N-term) - References**

Zhang, J., et al. Biochem. Biophys. Res. Commun. 375(2):252-255(2008)

Zuccolo, M., et al. EMBO J. 26(7):1853-1864(2007)

Ewing, R.M., et al. Mol. Syst. Biol. 3, 89 (2007) :

Vertegaal, A.C., et al. Mol. Cell Proteomics 5(12):2298-2310(2006)

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**RANGAP1 Antibody (N-term) - Citations**

- [Aging-related SUMOylation pattern in the cortex and blood plasma of wild type mice.](#)