

RANGAP1 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP13776a

Product Information

Application	WB, IHC-P, E
Primary Accession	P46060
Other Accession	NP_002874.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB33892
Calculated MW	63542
Antigen Region	20-49

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	WB~~1:1000 IHC-P~~1:100~500 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.

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.

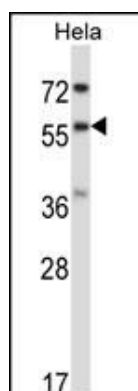
Background

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.

References

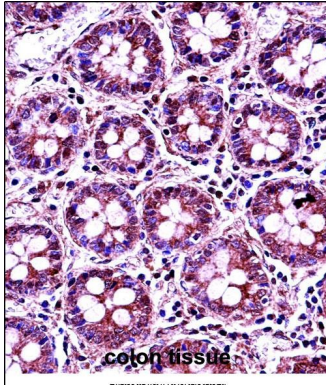
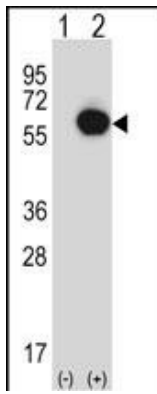
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Images



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.

Citations

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

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