

Goat Anti-RANGAP1 Antibody
Peptide-affinity purified goat antibody
Catalog # AF1911a**Specification**

Goat Anti-RANGAP1 Antibody - Product Information

Application	WB, IHC, E
Primary Accession	P46060
Other Accession	NP_002874 , 5905 , 19387 (mouse)
Reactivity	Human, Mouse
Predicted	Rat, Dog
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	63542

Goat Anti-RANGAP1 Antibody - Additional Information**Gene ID** 5905**Other Names**

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

DilutionWB~~1:1000
IHC~~1:100~500
E~~N/A**Format**

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

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

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

Goat Anti-RANGAP1 Antibody - 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).

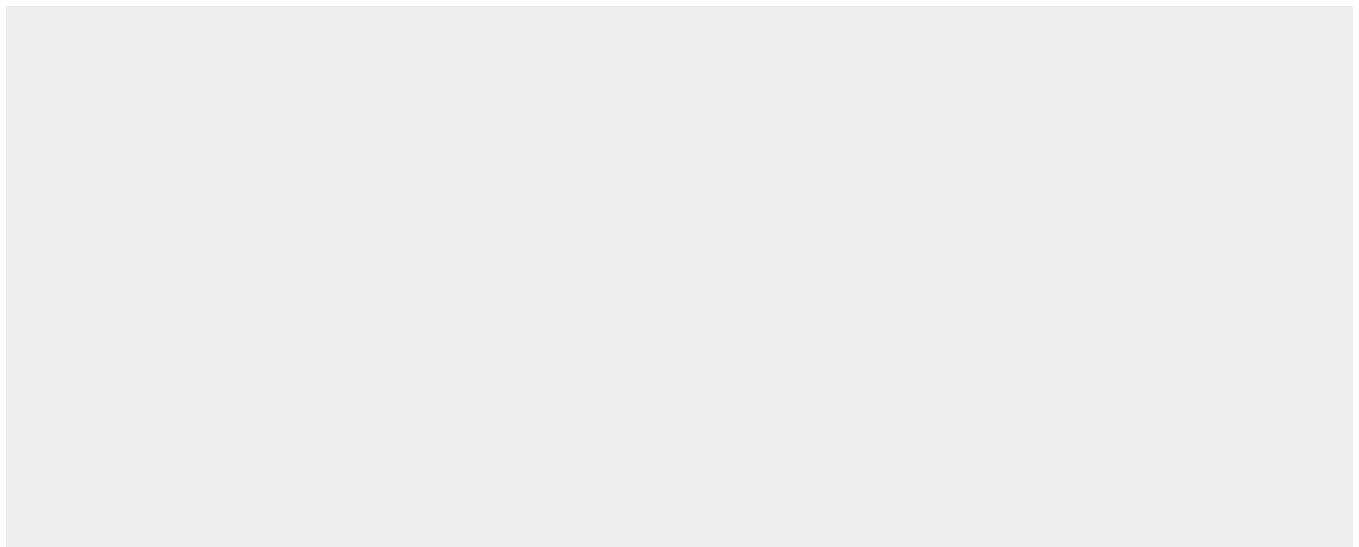
Tissue Location

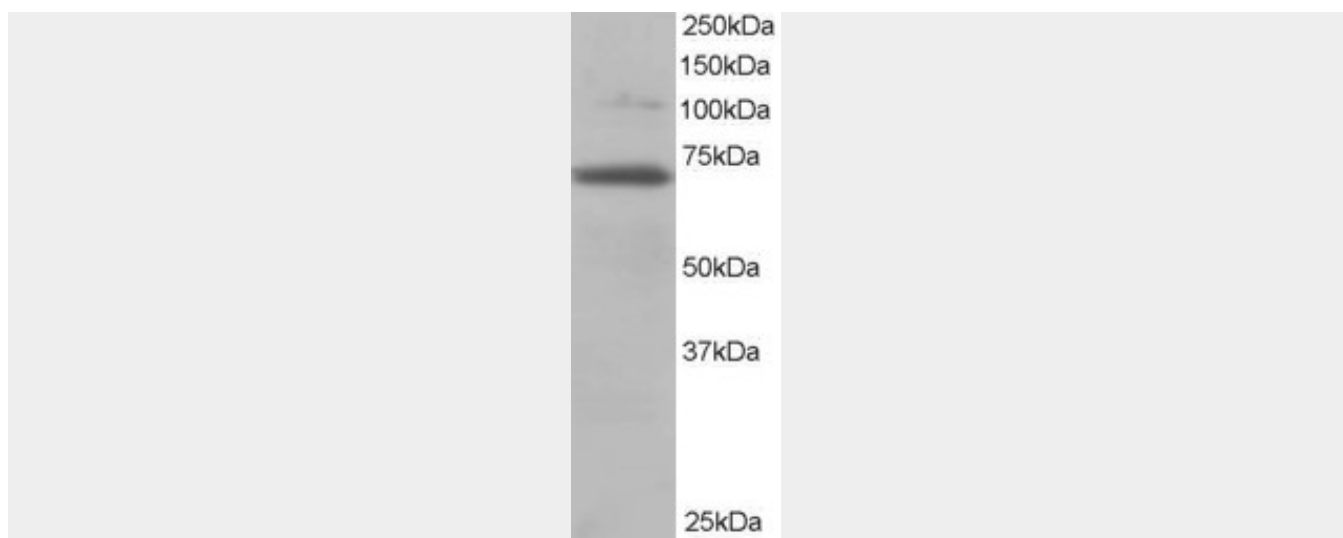
Highly expressed in brain, thymus and testis.

Goat Anti-RANGAP1 Antibody - Protocols

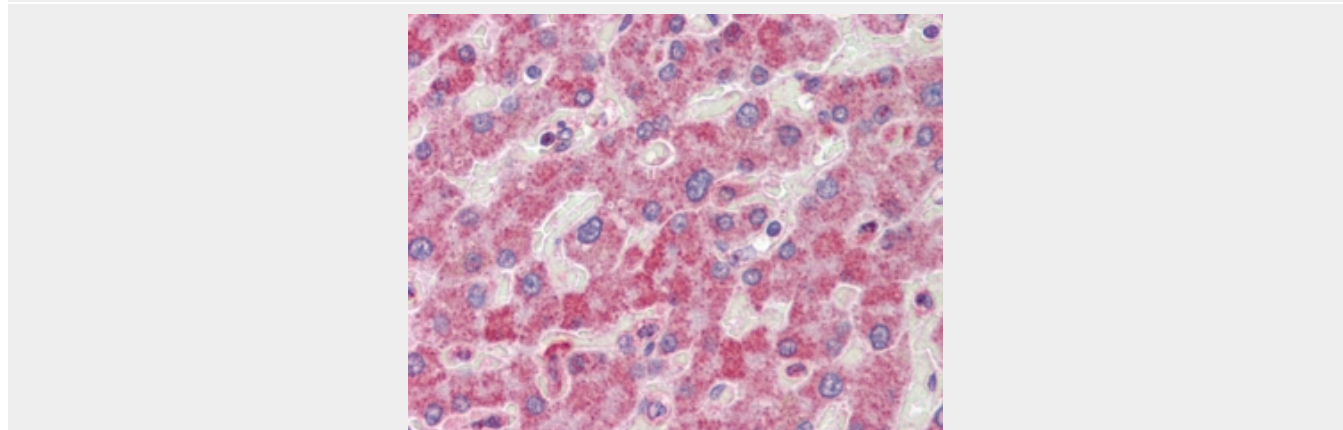
Provided below are standard protocols that you may find useful for product applications.

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

Goat Anti-RANGAP1 Antibody - Images



AF1911a staining (0.2 µg/ml) of 3T3 lysate (RIPA buffer, 35 µg total protein per lane). Primary incubated for 1 hour. Detected by western blot using chemiluminescence.



AF1911a (2.5 µg/ml) staining of paraffin embedded Human Liver. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.

Goat Anti-RANGAP1 Antibody - 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.

Goat Anti-RANGAP1 Antibody - References

Structure of the Siz/PIAS SUMO E3 ligase Siz1 and determinants required for SUMO modification of PCNA. Yunus AA, et al. Mol Cell, 2009 Sep 11. PMID 19748360.
Defining the human deubiquitinating enzyme interaction landscape. Sowa ME, et al. Cell, 2009 Jul 23. PMID 19615732.
Mel-18 interacts with RanGAP1 and inhibits its sumoylation. Zhang J, et al. Biochem Biophys Res Commun, 2008 Oct 17. PMID 18706886.
Ubc9 sumoylation regulates SUMO target discrimination. Knipscheer P, et al. Mol Cell, 2008 Aug 8. PMID 18691969.

Systematic analysis of the protein interaction network for the human transcription machinery reveals the identity of the 7SK capping enzyme. Jeronimo C, et al. Mol Cell, 2007 Jul 20. PMID 17643375.