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RANBP2 Antibody (N-term) Blocking Peptide

Synthetic peptide
Catalog # BP1120a

Specification

RANBP2 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession P49792

RANBP2 Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 5903

Other Names
E3 SUMO-protein ligase RanBP2, 632-, 358 kDa nucleoporin, Nuclear pore complex protein Nup358, Nucleoporin Nup358, Ran-binding protein 2, RanBP2, p270, RANBP2, NUP358

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP1120a was selected from the N-term region of human RANBP2. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

RANBP2 Antibody (N-term) Blocking Peptide - Protein Information

Name RANBP2

Synonyms NUP358

Function
E3 SUMO-protein ligase which facilitates SUMO1 and SUMO2 conjugation by UBE2I (PubMed:11792325, PubMed:12032081, PubMed:15378033, PubMed:22194619, PubMed:15931224). Involved in transport factor (Ran-GTP, karyopherin)-mediated protein import via the F-G repeat-containing domain which acts as a docking site for substrates (PubMed:7775481). Binds

single-stranded RNA (in vitro) (PubMed:7775481). May bind DNA (PubMed:7775481). Component of the nuclear export pathway (PubMed:10078529). Specific docking site for the nuclear export factor exportin-1 (PubMed:10078529). Inhibits EIF4E- dependent mRNA export (PubMed:22902403). Sumoylates PML at 'Lys-490' which is essential for the proper assembly of PML-NB (PubMed:22155184). Recruits BICD2 to the nuclear envelope and cytoplasmic stacks of nuclear pore complex known as annulate lamellae during G2 phase of cell cycle (PubMed:20386726). Probable inactive PPIase with no peptidyl- prolyl cis-trans isomerase activity (PubMed:20676357, PubMed:23353830).

Cellular Location
Nucleus. Nucleus membrane. Nucleus, nuclear pore complex. Nucleus envelope. Note=Detected in diffuse and discrete intranuclear foci (PubMed:11839768). Cytoplasmic filaments (PubMed:7775481).

RANBP2 Antibody (N-term) Blocking Peptide - Protocols

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

- Blocking Peptides

RANBP2 Antibody (N-term) Blocking Peptide - Images

RANBP2 Antibody (N-term) Blocking Peptide - Background

RAN is a small GTP-binding protein of the RAS superfamily that is associated with the nuclear membrane and is thought to control a variety of cellular functions through its interactions with other proteins. This gene encodes a very large RAN-binding protein that immunolocalizes to the nuclear pore complex. The protein is a giant scaffold and mosaic cyclophilin-related nucleoporin implicated in the Ran-GTPase cycle. The encoded protein directly interacts with the E2 enzyme UBC9 and strongly enhances SUMO1 transfer from UBC9 to the SUMO1 target SP100. These findings place sumoylation at the cytoplasmic filaments of the nuclear pore complex and suggest that, for some substrates, modification and nuclear import are linked events. This gene is partially duplicated in a gene cluster that lies in a hot spot for recombination on chromosome 2q.

RANBP2 Antibody (N-term) Blocking Peptide - References

Swaminathan, S., et al., J. Cell Biol. 164(7):965-971 (2004).Salina, D., et al., J. Cell Biol. 162(6):991-1001 (2003).Mavlyutov, T.A., et al., Traffic 3(9):630-640 (2002).Miyauchi, Y., et al., J. Biol. Chem. 277(51):50131-50136 (2002).Kirsh, O., et al., EMBO J. 21(11):2682-2691 (2002).