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[Marker Primary Antibody]

Rabbit Anti-RANBP16/Exp7/FITC Conjugated antibody

Catalog Number: SL21151R-FITC

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	Anti-RANBP16/Exp7/FITC
Immunogen:	KLH conjugated synthetic peptide derived from human RANBP16/Exp7
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Applications:	IF=1:100-500 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Human Mouse Rat(predicted:Chicken Dog Pig Cow Horse Zebrafish Sheep)
Background:	background: The transport of protein and large RNAs through the nuclear pore complexes (NPC) is an energy-dependent and regulated process. The import of proteins with a nuclear localization signal (NLS) is accomplished by recognition of one or more clusters of basic amino acids by the importin-alpha/beta complex; see MIM 600685 and MIM 602738. The small GTPase RAN (MIM 601179) plays a key role in NLS-dependent protein import. RAN-binding protein-16 is a member of the importin-beta superfamily of nuclear transport receptors.[supplied by OMIM, Jul 2002] **Function:** Mediates the nuclear export of proteins (cargos) with broad substrate specificity. In the nucleus binds cooperatively to its cargo and to the GTPase Ran in its active GTP-bound form. Docking of this trimeric complex to the nuclear pore complex (NPC) is mediated through binding to nucleoporins. Upon transit of a nuclear export complex into the cytoplasm, disassembling of the complex and hydrolysis of Ran-GTP to Ran-GDP (induced by RANBP1 and RANGAP1, respectively) cause release of the cargo

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	from the export receptor. XPO7 then return to the nuclear compartment and mediate another round of transport. The directionality of nuclear export is thought to be conferred by an asymmetric distribution of the GTP- and GDP-bound forms of Ran between the cytoplasm and nucleus. **Subunit:** Binds to nucleoporins. Found in a complex with XPO7, EIF4A1, ARHGAP1, VPS26A, VPS29, VPS35 and SFN. Interacts with ARHGAP1 and SFN. Interacts with Ran and cargo proteins in a GTP-dependent manner. **Subcellular Location:** Cytoplasm. Nucleus. Nucleus; nuclear pore complex. **Note:** Shuttles between the nucleus and the cytoplasm. **Tissue Specificity:** Strong expression in testis, thyroid and bone marrow, low expression in lung, liver and small intestine, no expression in thymus, and remaining tissues studied have moderate expression. Expressed in red blood cells; overexpressed in red blood cells (cytoplasm) of patients with hereditary non-spherocytic hemolytic anemia of unknown etiology. **Similarity:** Belongs to the exportin family. Contains 1 importin N-terminal domain. **Database links:** **Entrez Gene:** 100124498 Cow **Entrez Gene:** 23039 Human **Entrez Gene:** 65246 Mouse Omim: 606140 Human **SwissProt:** Q9UIA9 Human **SwissProt:** Q9EPK7 Mouse Important **Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.