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Exportin 5 Rabbit pAb

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Catalog # AP54428

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q9HAV4
Reactivity	Mouse
Predicted	Rat, Pig, Dog, Human, Rabbit, Chicken, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	136311
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Exportin 5
Epitope Specificity	221-320/1204
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Nucleus. Cytoplasm. Shuttles between the nucleus and the cytoplasm.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Exportin 5 (XPO5) is a member of the importin β family of proteins and functions in tRNA export in a sequence dependent fashion. More recently, it has been shown to export pre-miRNA by a RanGTPase-driven process from the nucleus to the cytoplasm, where pre-miRNA processing occurs to produce mature miRNAs. Study of the miRNA biosynthesis pathway is essential in understanding the process of oncogenesis as global downregulation of miRNAs and the resulting alterations in the expression of tumor suppressor and oncogenic proteins is a common phenotype of cancers cells . Research studies have shown disruption of exportin 5 functions in many types of cancers including breast and lung, where pre-miRNA accumulates in the nucleus and miRNA maturation is impaired.

Additional Information

Gene ID	57510
Other Names	Exportin-5, Exp5, Ran-binding protein 21, XPO5, KIAA1291, RANBP21
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

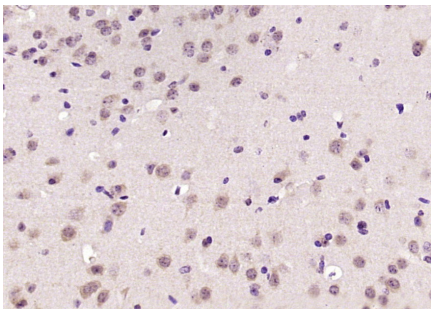
Protein Information

Name	XPO5
Synonyms	KIAA1291, RANBP21
Function	Mediates the nuclear export of proteins bearing a double- stranded RNA binding domain (dsRBD) and double-stranded RNAs (cargos). XPO5 in the nucleus binds cooperatively to the RNA and to the GTPase Ran in its active GTP-bound form. Proteins containing dsRBDs can associate with this trimeric complex through the RNA. Docking of this complex to the nuclear pore complex (NPC) is mediated through binding to nucleoporins. Upon transit of a nuclear export complex into the cytoplasm, hydrolysis of Ran-GTP to Ran-GDP (induced by RANBP1 and RANGAP1, respectively) cause disassembly of the complex and release of the cargo from the export receptor. XPO5 then returns to the nuclear compartment by diffusion through the nuclear pore complex, to 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. Overexpression may in some circumstances enhance RNA-mediated gene silencing (RNAi). Mediates nuclear export of isoform 5 of ADAR/ADAR1 in a RanGTP-dependent manner. (Microbial infection) Mediates the nuclear export of adenovirus VA1 dsRNA.
Cellular Location	Nucleus. Cytoplasm. Note=Shuttles between the nucleus and the cytoplasm
Tissue Location	Expressed in heart, brain, placenta, lung, skeletal muscle, kidney and pancreas.

Background

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Images



Paraformaldehyde-fixed, paraffin embedded (mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Exportin 5) Polyclonal Antibody, Unconjugated (AP54428) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.