



Rabbit Anti-Exportin 5 antibody

SL11219R

Product Name:	Exportin 5
Chinese Name:	核输出蛋白5抗体
Alias:	Exp 5; Exp5; Exportin 5; Exportin-5; Exportin5; FLJ14239; FLJ32057; FLJ45606; KIAA1291; Ran binding protein 21; Ran-binding protein 21; Ranbp 21; Ranbp21; Xpo 5; xpo5; XPO5_HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Pig,Cow,Horse,Rabbit,Sheep,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	136kDa
Cellular localization:	The nucleuscytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Exportin 5:221-320/1204
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
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 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	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.

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.

Mediates the nuclear export of micro-RNA precursors, which form short hairpins. Also mediates the nuclear export of synthetic short hairpin RNAs used for RNA interference, and adenovirus VA1 dsRNA. In some circumstances can also mediate the nuclear export of deacylated and aminoacylated tRNAs. Specifically recognizes dsRNAs that lack a 5'-overhang in a sequence-independent manner, have only a short 3'-overhang, and that have a double-stranded length of at least 15 base-pairs. Binding is dependent on Ran-GTP.

Subunit:

Component of a nuclear export receptor complex composed of XPO5, Ran, dsRNA-binding proteins and dsRNA. Found in a nuclear export complex with XPO5, Ran, EEF1A1, and aminoacylated tRNA. Found in a nuclear export complex with XPO5, Ran, ILF3 and dsRNA. Found in a nuclear export complex with XPO5, Ran and pre-miRNA. Found in a nuclear export complex with XPO5, Ran, ILF3 and minihelix VA1 dsRNA. Found in a nuclear export complex with XPO5, RAN, ILF3, ZNF346 and dsRNA. Interacts with EEF1A1, ILF3, NUP153, NUP214 and ZNF346. Interacts with Ran and cargo proteins in a GTP-dependent manner. Interacts with isoform 5 of ADAR/ADAR1 (via DRBM domains).

Subcellular Location:

Nucleus. Cytoplasm. Shuttles between the nucleus and the cytoplasm.

Tissue Specificity:

Expressed in heart, brain, placenta, lung, skeletal muscle, kidney and pancreas.

Similarity:

Belongs to the exportin family.

SWISS:

Q9HAV4

Gene ID:

57510

Database links:

[Entrez Gene: 57510](#)Human

[Entrez Gene: 72322](#)Mouse

[Entrez Gene: 363194](#)Rat

[Omim: 607845](#)Human

[SwissProt: Q9HAV4](#)Human

[SwissProt: Q924C1](#)Mouse

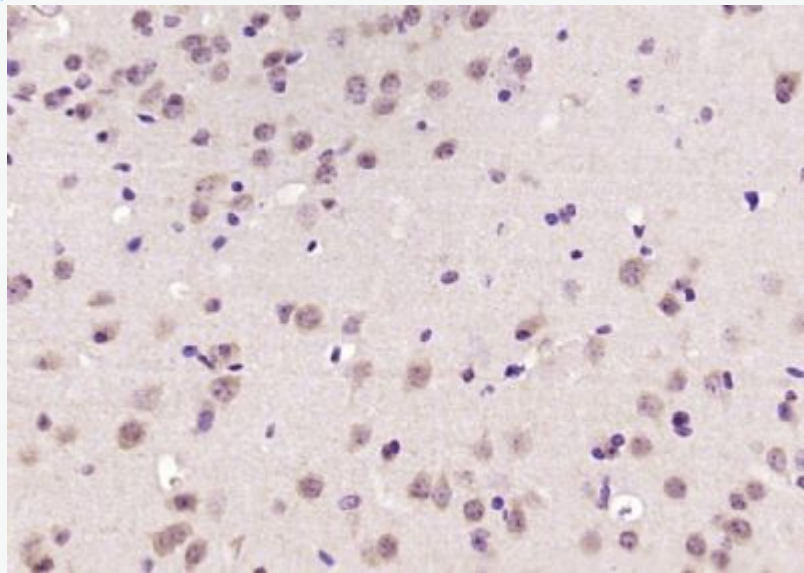
[Unigene: 203206](#)Human

[Unigene: 275039](#)Mouse

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Picture:



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 (SL11219R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.

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