



Rabbit Anti-Rab5b antibody

SL11783R

Product Name:	Rab5b
Chinese Name:	RAS相关蛋白Rab5B抗体
Alias:	Rab 5b; Rab5 b; RAB5B, member RAS oncogene family; Ras related protein Rab 5B; RAB5B HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Pig,Cow,Horse,Rabbit,Sheep,
Applications:	WB=1:500-2000ELISA=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:	24kDa
Cellular localization:	cytoplasmicThe cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Rab5b:15-120/215
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:	The Ras-related superfamily of guanine nucleotide binding proteins, which includes the R-Ras, Rap, Ral/Rec and Rho/Rab subfamilies, exhibit 30-60% homology with Ras p21. Accumulating data suggests an important role for Rab proteins, either in endocytosis or in biosynthetic protein transport. The transport of newly synthesized proteins from the endoplasmic reticulum to various stacks of the Golgi complex and to secretory vesicles involves at each stage the movement of carrier vesicles, a process that appears to

involve Rab protein function. The possibility that Rab proteins might also direct the exocytosis from secretory vesicles to the plasma membrane is supported by the observation that in yeast, the SEC4 protein, which is 40% homologous to Rab proteins, is associated with secretory vesicles. At least eight members of the Rab subfamily have been identified, each of which is found at a particular stage of a membrane transport pathway.

Function:

Rab5b is a member of the Rab family of small (monomeric) G proteins. Like other small G proteins, Rab5b switches between an inactive, GDP-form and an active, GTP-bound form. GDP/GTP exchange factors (GEFs) catalyse the conversion from the GDP-bound form to the GTP-bound form, while GTPase-activating proteins (GAPs) catalyse GTP hydrolysis to GDP. Rab5b is involved in endocytosis and recycling of cell surface molecules. It interacts with RIN2 and RIN3, which regulate its function, possibly by acting as GEFs. Knockdown of Rab5b abolished group I metabotropic glutamate receptor (mGluR)-mediated neuroprotection. Furthermore, Rab5b interacts with LRRK2, the defective gene at the PARK8 locus that results in Parkinson's disease. Roles for Rab5b in neurodegenerative disease, neuroprotection, and synaptic plasticity have been suggested.

Subunit:

Binds EEA1. Interacts with RIN2 and RIN3, which probably regulate its pathway, possibly by acting as GEFs.

Subcellular Location:

Cell membrane; Lipid-anchor; Cytoplasmic side. Early endosome membrane; Lipid-anchor. Melanosome. Note=Enriched in stage I melanosomes.

Similarity:

Belongs to the small GTPase superfamily. Rab family.

SWISS:

P61020

Gene ID:

5869

Database links:

[Entrez Gene: 5869](#)Human

[Entrez Gene: 19344](#)Mouse

[Entrez Gene: 100172422](#)Orangutan

[Entrez Gene: 288779](#)Rat

[Omid: 179514](#)Human

[SwissProt: P61020](#)Human

[SwissProt: P61021](#)Mouse

[SwissProt: Q5RBG1](#)Orangutan

[Unigene: 567328](#)Human

[Unigene: 12815](#)Mouse

[Unigene: 3305](#)Rat

Important Note:

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

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