Technical Data Sheet

Purified Mouse Anti-Rab5

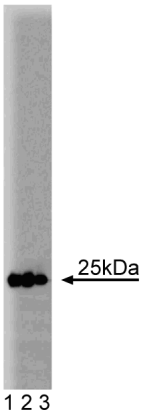
Product Information

Material Number:	**610725**
Size:	150 µg
Concentration:	250 µg/ml
Clone:	1/Rab5
Immunogen:	Human Rab5 aa. 1-215
Isotype:	Mouse IgG2a
Reactivity:	QC Testing: Human Tested in Development: Dog
Target MW:	25 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

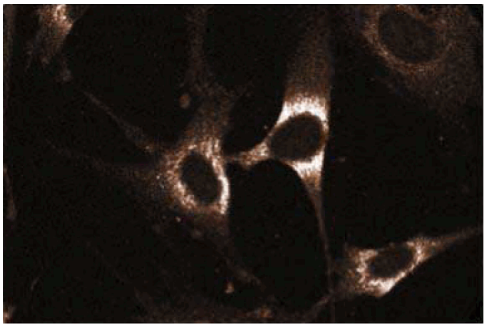
Description

Rab5 is a low molecular weight GTP-binding protein that plays a role in endocytic vesicle traffic. Like other Rab proteins, Rab5 has C-terminal cysteine residues that are post-translationally modified by geranylgeranylation which is critical for its membrane targeting. Rab5 is associated with early endosome and plasma membranes and evidence suggests that Rab5 regulates early endosome fusion. The GTP/GDP cycle controls shuttling of Rab proteins between the cytosol and membranes. *In vitro*, Rab5 proteins are removed from membranes by a GDP dissociation inhibitor protein (rabGDI) which leads to the formation of a cytosolic Rab5-rabGDI complex. Rab5 may insert into membranes by a multistep process in a which a transient GDP-Rab5 intermediate is formed and converted into GTP-Rab5 that subsequently enters the acceptor membrane and releases rabGDI into the cytosol.

This antibody is routinely tested by western blot analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.



Western blot analysis of Rab5 on a human endothelial cell lysate. *Lane 1: 1:500, lane 2: 1:1000, lane 3: 1:2000 dilution of the anti- Rab5 antibody.*



Immunoflourescent staining on WI-38 cells.

Preparation and Storage

Store undiluted at -20° C.
The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

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Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development
Immunohistochemistry	Tested During Development

Suggested Companion Products

Catalog Number	Name	Size	Clone
611450	Human Endothelial Cell Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Igs	1.0 ml	(none)
554001	FITC Goat Anti-Mouse Igs	0.5 mg	Polyclonal

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

Li G, Stahl PD. Structure-function relationship of the small GTPase rab5. *J Biol Chem.* 1993; 268(32):24475-24480.(Biology)

Sanford JC, Pan Y, Wessling-Resnick M. Prenylation of Rab5 is dependent on guanine nucleotide binding. *J Biol Chem.* 1993; 268(32):23773-23776.(Biology)

Stenmark H, Vitale G, Ullrich O, Zerial M. Rabaptin-5 is a direct effector of the small GTPase Rab5 in endocytic membrane fusion. *Cell.* 1995; 83(3):423-432. (Biology)

Ullrich O, Horiuchi H, Bucci C, Zerial M. Membrane association of Rab5 mediated by GDP-dissociation inhibitor and accompanied by GDP/GTP exchange. *Nature.* 1994; 368(6467):157-160.(Biology)