Technical Data Sheet

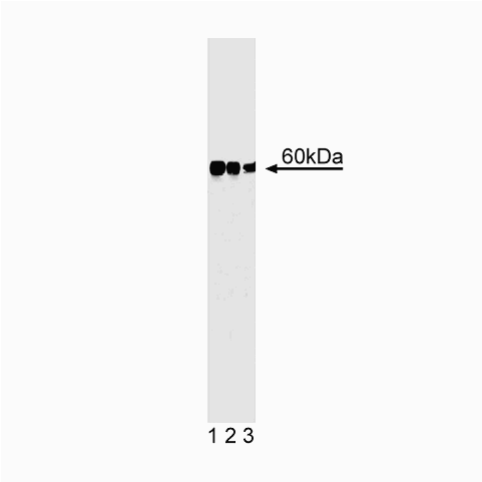
Purified Mouse Anti- Rabex-5

Product Information

Material Number:	**612558**
Alternate Name:	Rin2
Size:	50 µg
Concentration:	250 µg/ml
Clone:	27/Rabex-5
Immunogen:	Mouse Rabex-5 aa. 426-481
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Mouse Tested in Development: Rat, Human, Chicken
Target MW:	60 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

The Rab proteins are small GTP-binding molecules. They are localized to specific intracellular vesicles and organelles and are important for vesicular trafficking, cycling between an active GTP-bound and inactive GDP-bound form. Rab5 is associated with vesicle trafficking between the early endosomes and plasma membrane. In vitro, Rab5 proteins are removed from membranes by a GDP dissociation inhibitor protein (rabGDI). This leads to the formation of a cytosolic Rab5-rabGDI complex. Rab5 may insert into membranes by a multistep process in which a transient GDP-Rab5 intermediate is formed and converted into GTP- Rab5. Rabaptin-5 interacts with GTP-Rab5, and is recruited to the endosomal fraction in a Rab5/GTP-dependent manner. Removal of Rabaptin-5 from the cytosol substantially impairs GTP and Rab5-dependent endosomal fusion. Rabex-5 forms a complex with Rabaptin-5 and displays GDP/GTP exchange activity on Rab5 that promotes interaction between Rabaptin-5 and Rab5. Rabex-5 is also known as Rin2 based on its 15% identitiy with the RasGTPase-binding protein Rin1. Thus, Rabex-5/Rabaptin-5 complex is critical for Rab5 GDP/GTP exchange and membrane-associated activity.



Western blot analysis of Rabex-5 on a mouse cerebrum lysate. *Lane 1: 1:250, lane 2: 1:500, lane 3: 1:2000 dilution of the mouse anti- Rabex-5 antibody.*

Preparation and Storage

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

Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Not Recommended

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Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml

Suggested Companion Products

Catalog Number	Name	Size	Clone
611455	Mouse Cerebrum Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)

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

Horiuchi H, Lippe R, McBride HM. A novel Rab5 GDP/GTP exchange factor complexed to Rabaptin-5 links nucleotide exchange to effector recruitment and function. *Cell.* 1997; 90(6):1149-1159.(Biology)

Rubino M, Miaczynska M, Lippe R, Zerial M. Selective membrane recruitment of EEA1 suggests a role in directional transport of clathrin-coated vesicles to early endosomes. *J Biol Chem.* 2000; 275(6):3745-3748.(Biology)

Saito K, Murai J, Kajiho H, Kontani K, Kurosu H, Katada T. A novel binding protein composed of homophilic tetramer exhibits unique properties for the small GTPase Rab5. *J Biol Chem.* 2002; 277(5):3412-3418.(Biology)