

## Technical Data Sheet

## Purified Mouse Anti-Rab3

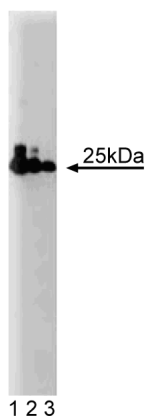
## Product Information

|                         |                                                                              |
|-------------------------|------------------------------------------------------------------------------|
| <b>Material Number:</b> | <b>610379</b>                                                                |
| <b>Size:</b>            | 50 µg                                                                        |
| <b>Concentration:</b>   | 250 µg/ml                                                                    |
| <b>Clone:</b>           | 9/Rab3                                                                       |
| <b>Immunogen:</b>       | Rat Rab3A aa. 60-220                                                         |
| <b>Isotype:</b>         | Mouse IgG2a                                                                  |
| <b>Reactivity:</b>      | QC Testing: Rat<br>Tested in Development: Dog                                |
| <b>Target MW:</b>       | 25 kDa                                                                       |
| <b>Storage Buffer:</b>  | Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide. |

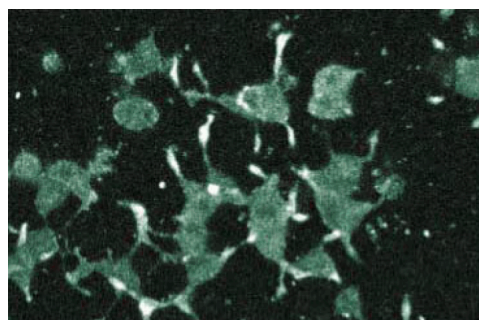
## Description

The Rab proteins are small GTP-binding molecules that are localized to specific intracellular vesicles and organelles, and are important for vesicular traffic. It is thought that Rab proteins cycle through GTP- and GDP-bound forms and that this cycle is related to their function. Four highly homologous (77-85% identity) Rab3 proteins have been described: Rab3A, Rab3B, Rab3C, and Rab3D. Rab3A reportedly is expressed in neuronal and neuroendocrine cells and is associated with synaptic and synaptic-like vesicles. Rab3A is involved at a late stage of neurotransmitter exocytosis, perhaps at the recruitment of vesicles at the presynaptic membrane. Rab3B and Rab3C are also reportedly predominantly expressed in neurons and neuroendocrine tissues. In contrast, Rab3D has been reported to be highly enriched in fat cells and probably does not function sequentially in the same exocytic pathway as Rab3A.

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 Rab3 on a rat cerebrum lysate.** Lane 1: 1:2500, lane 2: 1:5000, lane 3: 1:10,000 dilution of the anti-Rab3 antibody.



**Immunofluorescence staining of PC12 cells (Rat neuroblastoma; ATCC CRL-1721).**

## 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 |
| Immunoprecipitation  | Not Recommended           |

## Suggested Companion Products

| Catalog Number | Name                     | Size   | Clone      |
|----------------|--------------------------|--------|------------|
| 611463         | Rat Cerebrum 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](http://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

Novick P, Brennwald P. Friends and family: the role of the Rab GTPases in vesicular traffic. *Cell*. 1993; 75(4):597-601.(Biology)  
Yi Z, et al.. The Rab27a/Granuphilin Complex Regulates the Exocytosis of Insulin-Containing Dense-Core Granules. *Mol Cell Biol*. 2002; 22:1858-1867.(Biology: Immunofluorescence, Immunoprecipitation, Western blot)