Technical Data Sheet

Purified Anti-Human Rab5

**Product Information**

- **Material Number:** 610724
- **Size:** 50 µg
- **Concentration:** 250 µg/ml
- **Clone:** 1/Rab5
- **Immunogen:** Human Rab5 aa. 1-215
- **Isotype:** Mouse IgG2a
- **Reactivity:** QC Testing: Human
- **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 binding. 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 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.

**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**

<table>
<thead>
<tr>
<th>Application</th>
<th>Tested During Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immunofluorescence</td>
<td></td>
</tr>
<tr>
<td>Immunohistochemistry</td>
<td></td>
</tr>
<tr>
<td>Western blot</td>
<td>Routinely Tested</td>
</tr>
</tbody>
</table>

**Recommended Assay Procedure:**
Recommended dilution for western blot analysis is 1:500. Detailed protocol is available at http://wwwbdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml

**Suggested Companion Products**

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
</tr>
</thead>
<tbody>
<tr>
<td>611450</td>
<td>Human Endothelial Cell Lysate</td>
<td>500 µg</td>
<td>(none)</td>
</tr>
</tbody>
</table>

**Product Notices**

1. 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.
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
3. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
4. Please refer to wwwbdbiosciences.com/pharmingen/protocols for technical protocols.

**References**

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, Ulrich 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)