Technical Data Sheet

Purified Mouse Anti-PBK

Product Information

Material Number: 612170
Size: 50 µg
Concentration: 250 µg/ml
Clone: 31/PBK
Immunogen: Human PBK aa. 191-322
Isotype: Mouse IgG2b

Reactivity: QC Testing: Human
Tested in Development: Mouse, Rat

Target MW: 41 kDa
Storage Buffer: Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Mitogen activated protein (MAP) kinase signal transduction pathways mediate the effects of various extracellular stimuli on biological processes such as proliferation, differentiation, and death. The p38 MAP kinases are activated by dual phosphorylation on Thr and Tyr within the motif Thr-Gly-Tyr located in kinase subdomain VIII. Activation of p38 MAPK is mediated specifically by the MAP kinase kinases, MKK3 and MKK6. PBK is a PDZ-binding Ser-Thr kinase related to the MKK3/6 MAPKK family. PBK was also identified as T-LAK cell-activated protein kinase (TOPK) and spermatogenesis-related protein kinase (SPK). PBK contains the conserved dual specificity active site sequence (D-X-K-X-X-N) at amino acids 174 to 179, and a C-terminal ETDV motif that binds PDZ domains. The mRNA expression of PBK is reportedly highest in placenta, and lower in heart and pancreas. In mitotic cells, PBK is phosphorylated and enzymatically active, and in vitro, PBK is phosphorylated by Cdc2/cyclin B. PBK can bind to the PDZ domain-containing protein, Dlg, and can phosphorylate p38 MAPK. Thus, PBK is a MAPKK family member that may be important for regulation of PDZ domain proteins during mitosis.

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**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Western blot</td>
<td>Routinely Tested</td>
</tr>
<tr>
<td>Immunofluorescence</td>
<td>Not Recommended</td>
</tr>
</tbody>
</table>

**Recommended Assay Procedure:**

**Western blot:** Please refer to http://www.bdbiosciences.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>611451</td>
<td>Jurkat Cell Lysate</td>
<td>500 µg</td>
<td>(none)</td>
</tr>
<tr>
<td>554002</td>
<td>HRP Goat Anti-Mouse Ig</td>
<td>1.0 ml</td>
<td>(none)</td>
</tr>
</tbody>
</table>

**Product Notices**

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. 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.

**References**

