Technical Data Sheet

Purified Mouse Anti-p70 [S6K]

Product Information

Material Number: 611260
Alternate Name: p70 S6 Kinase
Size: 50 µg
Concentration: 250 µg/ml
Clone: 16/p70[S6K]
Immunogen: Rat p70 [S6K] aa. 2-121
Isotype: Mouse IgG1
Reactivity: QC Testing: Rat
Tested in Development: Mouse, Human
Target MW: 60-70 kDa
Storage Buffer: Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Increased protein synthesis, an obligatory step in cell proliferation, is regulated by the phosphorylation of a number of translational components, such as ribosomal protein S6. p70 S6 Kinase (p70 [S6K]), a cytosolic kinase that is primarily responsible for S6 phosphorylation, belongs to a family of at least six S6 kinases. p70 [S6K] and p85 [S6K] are two isoforms of the same kinase. Although they are encoded by the same gene, p80 [S6K] contains a 23 amino acid N-terminal extension that serves as a nuclear localization sequence. These kinases are located in a p21 ras-independent signaling pathway and are regulated by Ser/Thr phosphorylation in response to mitogenic stimulation. Activation of p70 [S6K] requires sequential phosphorylations within the autoinhibitory domain and at Thr 389. p70 [S6K] associates with PDK-1 and PKCζ to form a possible PI3-K signaling complex. The immunosuppressive agent rapamycin forms an intracellular complex with FKBP12 and FRAP (RAFT1) that inhibits phosphorylation of p70 [S6K] at Thr 389 and, in turn, prevents enzyme activation. Thus, p70 [S6K] is an important regulator of cell proliferation and a potential target of agents that modify the immune and proliferative responses. p70 [S6K] has been reported to be observable migrating within a range of 60-70 kD by western blotting.

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

Recommended Assay Procedure:

Western blot: Please refer to http://wwwbdbiosciencescom/pharmingen/protocols/Western_Blotting.shtml

Suggested Companion Products

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
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</thead>
<tbody>
<tr>
<td>611467</td>
<td>Rat Liver 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>
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<tr>
<td>554001</td>
<td>FITC Goat Anti-Mouse Ig</td>
<td>0.5 mg</td>
<td>Polyclonal</td>
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Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to wwwbdbiosciencescom/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


