Technical Data Sheet

Purified Mouse Anti-Human MST1

Product Information

Material Number: 611052
Alternate Name: Mammalian Sterile Twenty-like 1; Mammalian STE20-like kinase-1
Size: 50 µg
Concentration: 250 µg/ml
Clone: 7/MST1
Immunogen: Human MST1 aa. 331-483
Isotype: Mouse IgG1
Reactivity: QC Testing: Human
Target MW: 56 kDa
Storage Buffer: Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Ste20 is a S. cerevisiae Ser/Thr protein kinase that functions upstream of the MAP kinase module. Mammalian and yeast homologs of this kinase are divided into two classes based on their structure and regulation. Members of the first class (Ste20, Cla4, and p21-activated protein kinase [PAK]) contain a C-terminal kinase domain, an N-terminal regulatory domain and a small GTPase Rac1/Cdc42-binding domain. Members of the second class lack GTPase-binding sites, but are similar to the former class throughout the catalytic domain. The latter class includes GC kinase, HPK, KHS, KRS1 & 2, MST1, 2, & 3, and SOK-1. MST1 (Mammalian Sterile Twenty-like-1) is a ubiquitously expressed kinase that contains an N-terminal kinase domain and C-terminal dimerization and inhibitory domains. Apoptotic stimuli, such as anti-Fas, result in cleavage of the C-terminal regulatory domain by caspase-3 or a related caspase, and activation of MST1. Overexpression of MST1 induces caspase activity, apoptotic morphological changes, and the activation of the SAPK and p38 MAPK pathways. Thus, MST1 is thought to function as a component of a positive feedback loop that amplifies the apoptotic response.

Preparation and Storage

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

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Application Notes

**Application**

<table>
<thead>
<tr>
<th>Application</th>
<th>Western blot</th>
<th>Immunofluorescence</th>
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</thead>
<tbody>
<tr>
<td>Routinely Tested</td>
<td>Western blot</td>
<td></td>
</tr>
<tr>
<td>Tested During Development</td>
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**Recommended Assay Procedure:**

*Western blot:* Please refer to 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>
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<tbody>
<tr>
<td>611451</td>
<td>Jurkat Cell Lysate</td>
<td>500 µg</td>
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<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 wwwbdbiosciences.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**