Technical Data Sheet

Purified Mouse Anti-Id1

Product Information

Material Number: 556522
Size: 0.1 mg
Concentration: 0.5 mg/ml
Clone: B30-1
Immunogen: Mouse Id1 (full-length)-GST Recombinant Protein
Isotype: Mouse IgG2a, κ
Reactivity: QC Testing: Human
Tested in Development: Mouse
Target MW: 45 kDa
Storage Buffer: Aqueous buffered solution containing ≤0.09% sodium azide.

Description

Id proteins were originally characterized as inhibitors of DNA binding and cell differentiation. Id1 through 4 contain an evolutionarily conserved helix-loop-helix (HLH) sequence which is critical for protein-protein interaction(s). Most HLH transcription factors contain a basic amino acid region adjacent to the HLH sequence, the bHLH sequence, which is responsible for DNA binding. bHLH transcription factors fall into 2 major groups designated class A factors, such as E2/2 and E47, and class B factors, such as MyoD, myogenin. In vitro studies demonstrate distinct interaction(s) between Id proteins and bHLH transcription factors. While Id proteins contain an HLH domain, they lack the basic region which is required for DNA binding. Therefore, Id proteins are negative regulators of transcription since complexes which contain them do not bind DNA. Id proteins are variably expressed throughout the cell cycle and are regulated by phosphorylation by cyclin-cdk complexes. Thus, Id proteins play an important role in transcriptional regulation of cell cycle related genes. Overexpression of Id1 can induce apoptosis in serum-starved fibroblasts and is correlated with cell cycle progression promoted by Id family members. Human Id1 has been reported to have a molecular weight of ~16-17 kDa. This antibody has been reported to recognize mouse Id1 and not to crossreact with either mouse Id2 or mouse Id3.

This antibody is routinely tested by the western blot analysis. Other applications were tested at the 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 4° C.
**Application Notes**

**Application**

<table>
<thead>
<tr>
<th>Western blot</th>
<th>Routinely Tested</th>
</tr>
</thead>
</table>

**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>
</tr>
</thead>
<tbody>
<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.
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.

**References**


Riechmann V, van Crüchten I, Sablitzky F. The expression pattern of Id4, a novel dominant negative helix-loop-helix protein, is distinct from Id1, Id2 and Id3. Nucleic Acids Res. 1994; 22(5):749-755.(Biology)