Technical Data Sheet

Polyclonal Rabbit Anti-CD220 (Insulin Receptor β)

Product Information

Material Number: 611277
Size: 150 µg
Concentration: 250 µg/ml
Reactivity: QC Testing: Rat
Predicted: Mouse, Human
Target MW: 95 kDa
Storage Buffer: Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

The Insulin Receptor (IR), also known as CD220, is a transmembrane receptor tyrosine kinase which, upon insulin binding, initiates a cascade of events, including autophosphorylation, phosphorylation of cellular protein substrates, glucose transport, and glycogen synthesis. IR is synthesized as a large glycosylated precursor that is cleaved upon maturation into a 130 kDa α-subunit with kinase activity and a 95 kDa β-chain. The active Insulin Receptor is a heterotetramer of homologous α and β subunits joined by disulfide bonds. Among the major cytosolic substrates of the Insulin Receptor are IRS-1 and -2, β-Adrenergic receptor, and pp15 (adipocyte lipid-binding protein, ALBP). Autophosphorylation of the IR recruits IRS-1 and -2 to docking sites for other signaling proteins like PI3-Kinase, Shc, PTP1D, Nck, etc.

In addition, the phosphatase LAR is tightly associated with the IR and LAR becomes activated after insulin stimulation dephosphorylating the IR and its substrates. Therefore, LAR provides a turn-off mechanism in insulin signaling.

This antibody was generated using the human insulin pro-receptor β-subunit aa. 1212-1381.

Preparation and Storage

Store undiluted at -20°C.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Application Notes

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

Western blot analysis of CD220 (Insulin receptor β) on a rat liver lysate. Lane 1: 1:125, lane 2: 1:250, and lane 3: 1:500 dilution of the rabbit anti-CD220 (insulin receptor β) antibody.

Immunofluorescence staining of rat neurons.
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>611467</td>
<td>Rat Liver Lysate</td>
<td>500 µg</td>
<td>(none)</td>
</tr>
<tr>
<td>554021</td>
<td>HRP Goat Anti-Rabbit 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. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
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


