Monoclonal Anti-DNP antibody, Human IgG1

Catalog # DNP-M2

For Research Use Only, Not For Use In Diagnostic Or Therapeutic Procedures

Basic Information:

<table>
<thead>
<tr>
<th>Species Reactivity</th>
<th>Human</th>
</tr>
</thead>
<tbody>
<tr>
<td>Host Cells</td>
<td>HEK293 cells</td>
</tr>
<tr>
<td>MW</td>
<td>50 kDa and 25 kDa for the heavy and light chains, respectively (150 kDa)</td>
</tr>
<tr>
<td>Isotype</td>
<td>Human IgG1, Kappa LC</td>
</tr>
<tr>
<td>Clonality</td>
<td>Monoclonal</td>
</tr>
</tbody>
</table>

Description:

Dinitrophenyl (DNP) is a hapten that is often used for labeling primary or secondary probes in immunological assays. Therefore, anti-DNP antibody is a useful tool for the detection and analysis of target molecules. Monoclonal Anti-DNP (Anti-Hapten) antibody, Human IgG1 was purified from HEK293 cell culture at ACRObiosystems, and specifically reacts with DNP (Dinitrophenyl) and DNP conjugated proteins.

Purification:

Protein A affinity chromatography from HEK293 culture supernatants.

Format:

Lyophilized powder

Application:

Suitable for use in ELISA. Each laboratory should determine an optimum working titer for use in its particular application. Other applications have not been tested but use in such assays should not necessarily be excluded.

Formulation:

Lyophilized from 0.22 μm filtered solution in 50 mM tris, 100 mM glycine, pH7.5. Normally mannitol or trehalose are added as protectants before lyophilization.

Reconstitution:

See Certificate of Analysis for reconstitution instructions and specific concentrations.

Storage:

Avoid freeze-thaw cycles. No activity loss was observed after storage at:

- 4 °C for 1 year in lyophilized state.
- -70 °C for 3 months under sterile conditions after reconstitution.

Quality Assurance:

Binding of monoclonal Anti-DNP antibody, Human IgG1 to immobilized DNP-BSA conjugate in a functional ELISA assay.
Monoclonal Anti-Dinitrophenyl antibody, Human IgG1

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## Related Products:

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<tbody>
<tr>
<td>Monoclonal Anti-DNP antibody, Human IgG1 (N279A)</td>
<td>DNP-MB273</td>
<td>Lyophilized Powder</td>
<td>100ug, 1mg</td>
</tr>
<tr>
<td>Monoclonal Anti-DNP antibody, Human IgG4</td>
<td>DNP-M3</td>
<td>Lyophilized Powder</td>
<td>100ug, 1mg</td>
</tr>
<tr>
<td>Monoclonal Anti-DNP antibody, Mouse IgG1</td>
<td>DNP-M1</td>
<td>Lyophilized Powder</td>
<td>100ug, 1mg</td>
</tr>
</tbody>
</table>

## Background:

A hapten is a small molecule that can elicit an immune response only when conjugated with a large carrier such as a protein. Typical haptens include drugs, urushiol, quinone, steroids, etc. Peptides and non-protein antigens usually need conjugating to a carrier protein (such as BSA (bovine serum albumin) or KLH (keyhole limpet hemocyanin) to become good immunogens). Additionally, haptens should be administered with an adjuvant to ensure a high quality immune response.

It is important that the hapten design (preserving greatly the chemical structure and spatial conformation of target compound), selection of the appropriate carrier protein and the conjugation method are key conditions for the desired specificity anti-hapten antibodies. We design anti-hapten antibodies based on the HaptenDB information.