Technical Data Sheet

Purified Mouse Anti-Human CD247 with Control

Product Information

Material Number: 551034
Alternate Name: CD3ζ chain
Size: 150 µg
Reactivity: QC Testing: Human
Tested in Development: Mouse

Component: 51-6527GR
Description: Purified Mouse Anti-Human CD247 (CD3ζ chain)
Size: 50 µg (3 ea)
Concentration: 0.25 mg/ml
Clone Name: 8D3
Immunogen: Human CD3ζ synthetic peptide
Isotype: Mouse IgG1
Target MW: 16 kDa, 32 kDa
Storage Buffer: Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Component: 51-16526N
Description: Jurkat Cell Lysate
Size: 50 µg (1 ea)
Concentration: 1.0 mg/ml
Storage Buffer: SDS-PAGE buffer (62mM Tris pH 6.8, 2% SDS, 0.9% b-mercaptoethanol, 0.003% bromophenol blue, 5% glycerol)

Description

The T-cell receptor (TCR), expressed by thymus-derived lymphocytes, is a multi-component complex responsible for recognizing antigen in the context of MHC molecules. Ti is the antigen-specific binding component of the TCR. On the majority of peripheral T lymphocytes Ti is present as a disulfide-linked α-β heterodimer. A minor fraction express Ti as a γ-δ heterodimer. The Ti subunits are Ig-like, each containing V and C regions. Ti is noncovalently associated with an invariant set of molecules referred to as the CD3 subunits. CD3 appears early in thymocyte differentiation and remains expressed on all mature T lymphocytes. In the mouse, it consists of five chains, γ (gamma), δ (delta), ε (epsilon), ζ (zeta), and p21. The relative masses of the mouse CD3 chains are 21, 28, 26, 32 (dimer), and 21 kDa respectively.

The 8D3 antibody recognizes the ζ chain of the human and mouse T cell antigen receptor-associated CD3 complex. It reacts with 16 kDa unphosphorylated monomers and 32 kDa unphosphorylated dimers. It does not appear to recognize 21 kDa phosphorylated monomers or 42 kDa phosphorylated dimers. A synthetic peptide corresponding to a region of human CD3ζ was used as immunogen.

Western blot analysis of CD3ζ. Lysate from Jurkat cells was probed with anti-CD3ζ (clone 8D3, Comp. No. 51-6527GR) at concentrations of 0.5 (lane 1), 0.25 (lane 2), and 0.125 µg/ml (lane 3). CD3ζ is identified as a band of 16 kDa.
Preparation and Storage

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

Application Notes

<table>
<thead>
<tr>
<th>Application</th>
<th>Routinely Tested</th>
<th>Immunoprecipitation</th>
<th>Reported</th>
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<tr>
<td>Western blot</td>
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Recommended Assay Procedure:
Jurkat control lysate [50 µg (1 µg/µl)] is provided as a Western blot positive control (Comp. 51-16526N; store lysate at -20°C). Additional control lysate (Cat. No. 611451) is sold separately as a ready-to-use western blot control.

Suggested Companion Products

<table>
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<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>
<td>(none)</td>
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<tr>
<td>554002</td>
<td>HRP Goat Anti-Mouse Ig</td>
<td>1 mL</td>
<td>(none)</td>
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Product Notices
1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
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