Product datasheet

Anti-CD3 antibody [SP162] ab135372

Overview

Product name
Anti-CD3 antibody [SP162]

Description
Rabbit monoclonal [SP162] to CD3

Host species
Rabbit

Tested applications
Suitable for: ICC/IF, IHC-P, Flow Cyt, WB

Species reactivity
Reacts with: Mouse, Human

Predicted to work with: Rat, Rabbit, Chicken, Cow, Dog, Pig

Immunogen
Synthetic peptide within Human CD3 aa 150 to the C-terminus (internal sequence). The exact sequence is proprietary.

Database link: P07766

Positive control
IHC-P: Human tonsil tissue. Flow Cyt: Jurkat and Mouse Splenocyte cells WB: Jurkat whole cell lysate (ab7899). ICC/IF: Jurkat and EL4,IL-2 cells

General notes
This product is a recombinant rabbit monoclonal antibody.

Properties

Form
Liquid

Storage instructions
Shipped at 4°C. Store at +4°C. Do Not Freeze.

Storage buffer
pH: 7.6
Preservative: 0.1% Sodium azide
Constituents: PBS, 1% BSA

Purity
Immunogen affinity purified

Purification notes
Purified from TCS by protein A/G.

Clonality
Monoclonal

Clone number
SP162

Isotype
IgG
Function

The CD3 complex mediates signal transduction.

Involvement in disease

Defects in CD3D are a cause of severe combined immunodeficiency autosomal recessive T-cell-negative/B-cell-positive/NK-cell-positive (T(-)/B(+)/NK(+) SCID) [MIM:608971]. A form of severe combined immunodeficiency (SCID), a genetically and clinically heterogeneous group of rare congenital disorders characterized by impairment of both humoral and cell-mediated immunity, leukopenia, and low or absent antibody levels. Patients present in infancy recurrent, persistent infections by opportunistic organisms. The common characteristic of all types of SCID is absence of T-cell-mediated cellular immunity due to a defect in T-cell development.

Sequence similarities

Contains 1 ITAM domain.

Cellular localization

Membrane.

Applications

Our Abpromise guarantee covers the use of ab135372 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICC/IF</td>
<td>1/10.</td>
<td></td>
</tr>
<tr>
<td>IHC-P</td>
<td>1/150.</td>
<td>Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. Incubate with primary antibody for 10 minutes at room temperature.</td>
</tr>
<tr>
<td>Flow Cyt</td>
<td>1/150 - 1/200.</td>
<td>ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.</td>
</tr>
<tr>
<td>WB</td>
<td>1/150.</td>
<td>Predicted molecular weight: 19 kDa. Incubate for 1 hour at room temperature.</td>
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</tbody>
</table>

Target

Function

The CD3 complex mediates signal transduction.

Involvement in disease

Defects in CD3D are a cause of severe combined immunodeficiency autosomal recessive T-cell-negative/B-cell-positive/NK-cell-positive (T(-)/B(+)/NK(+) SCID) [MIM:608971]. A form of severe combined immunodeficiency (SCID), a genetically and clinically heterogeneous group of rare congenital disorders characterized by impairment of both humoral and cell-mediated immunity, leukopenia, and low or absent antibody levels. Patients present in infancy recurrent, persistent infections by opportunistic organisms. The common characteristic of all types of SCID is absence of T-cell-mediated cellular immunity due to a defect in T-cell development.

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Images

Immunocytochemistry/Immunofluorescence analysis of Jurkat (human T cell leukemia T lymphocyte) cells labeling CD3 with purified ab135372 at 1/10 (10 µg/ml). Cells were fixed in 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. Cells were counterstained with ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody at 1/1000 (2 µg/ml) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.
Flow Cytometry analysis of Jurkat (Human T cell leukemia T lymphocyte) cells labeling CD3 with purified ab135372 at 1/200 dilution (0.60 µg/ml) (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) secondary antibody was used at 1/2000 dilution. Isotype control - Rabbit monoclonal IgG (ab172730) / Black. Unlabeled control - Unlabelled cells / blue.

Immunohistochemical analysis of formalin-fixed, paraffin-embedded human tonsil tissue labeling CD3 with ab135372 at a 1/150 dilution.

Immunocytochemistry/Immunofluorescence analysis of EL4.IL-2 (mouse lymphoma T lymphocyte) cells labeling CD3 with purified ab135372 at 1/10 (10 µg/ml). Cells were fixed in 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. Cells were counterstained with ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody at 1/1000 (2 µg/ml) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.
Flow Cytometry analysis of Mouse Splenocyte cells labeling CD3 with purified ab135372 at 1/20 dilution (5.95 µg/ml) (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, ab150081) secondary antibody was used at 1/2000 dilution. Isotype control - Rabbit monoclonal IgG (ab172730) / Black. Unlabeled control - Unlabelled cells / blue.

Flow cytometric analysis of rabbit anti-CD3 (SP162) antibody ab135372 (1/150) in Jurkat (Human T cell leukemia cell line from peripheral blood) cells (green) compared to negative control of rabbit IgG (blue).

Anti-CD3 antibody [SP162] (ab135372) at 1/150 dilution + Jurkat (Human T cell leukemia cell line from peripheral blood) cell lysate

**Predicted band size:** 19 kDa

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