Product datasheet

Anti-IL-21 antibody ab5978

Overview

Product name  Anti-IL-21 antibody
Description  Rabbit polyclonal to IL-21
Host species  Rabbit
Tested applications  Suitable for: ICC/IF, IHC-P, WB
Species reactivity  Reacts with: Mouse, Human
Predicted to work with: Rat, Cow, Dog, Pig
Immunogen  Synthetic peptide corresponding to Human IL-21 aa 121-135.
Sequence: TCPSCDSYEKKPPKE
Database link: Q9HBE4
(Peptide available as ab6025, ab6680)

Positive control
Purchase matching WB positive control:
Recombinant human IL-21 protein
WB: HL-60 or THP-1 whole cell lysate. ICC: K562 cells

General notes  Stable for one year.

A novel cytokine was recently identified in human and mouse and designated IL-21, which has significant homology to IL-2, IL-4, and IL-15. The receptor for IL-21 (IL-21R, also termed NILR for novel Interleukin receptor) is a new member of the class I cytokine receptor family. IL-21R forms a complex with the common cytokine receptor g chain, gc, and mediates IL-21 signaling. IL-21 and its receptor activate JAK-STAT signaling pathway. IL-21 is expressed in activated T cells, and HL-60 and THP-1 cell lines. IL-21 plays a role in the proliferation and maturation of NK, B and T cell populations.

Properties

Form  Liquid
Storage instructions  Shipped at 4°C. Store at +4°C.
A novel cytokine was recently identified in human and mouse and designated IL-21, which has significant homology to IL-2, IL-4, and IL-15. The receptor for IL-21 (IL-21R, also termed NILR for novel Interleukin receptor) is a new member of the class I cytokine receptor family. IL-21R forms a complex with the common cytokine receptor g chain, gc, and mediates IL-21 signaling. IL-21 and its receptor activate JAK-STAT signaling pathway. IL-21 is expressed in activated T cells, and HL-60 and THP-1 cell lines. IL-21 plays a role in the proliferation and maturation of NK, B and T cell populations.

Function
Cytokine with immunoregulatory activity. May promote the transition between innate and adaptive immunity. Induces the production of IgG(1) and IgG(3) in B-cells (By similarity). May play a role in proliferation and maturation of natural killer (NK) cells in synergy with IL15. May regulate proliferation of mature B- and T-cells in response to activating stimuli. In synergy with IL15 and IL18 stimulates interferon gamma production in T-cells and NK cells. During T-cell mediated immune response may inhibit dendritic cells (DC) activation and maturation.

Tissue specificity
Expressed in activated CD4-positive T-cells but not in CD8-positive T-cells, B-cells, or monocytes.

Sequence similarities
Belongs to the IL-15/IL-21 family.

Cellular localization
Secreted.

Applications
Our Abpromise guarantee covers the use of ab5978 in the following tested applications.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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<tbody>
<tr>
<td>ICC/IF</td>
<td></td>
<td>Use a concentration of 2 µg/ml.</td>
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<tr>
<td>IHC-P</td>
<td>⭐⭐⭐⭐⭐</td>
<td>Use at an assay dependent concentration.</td>
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<tr>
<td>WB</td>
<td>⭐⭐⭐⭐⭐</td>
<td>Use a concentration of 0.5 - 1 µg/ml. Detects a band of approximately 18 kDa.</td>
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Target

Images
Western blot analysis of IL-21 expression in HL-60 cell lysate in the absence (lane A) or presence of blocking peptide (lane B) with ab5978 at 1 µg/ml. Western blot analysis of IL-21 expression in HL-60 cell lysate in the absence (lane A) or presence of blocking peptide (lane B) with ab5978 at 1 µg/ml.

ab5978 staining IL21 in mouse skin tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 10% serum for 30 minutes at room temperature; antigen retrieval was by heat mediation in a citrate buffer. Samples were incubated with primary antibody (1/8000 in 10% normal goat serum) for 10 hours. A Biotin-conjugated goat anti-rabbit IgG polyclonal (1/350) was used as the secondary antibody.
Immunocytochemistry/ Immunofluorescence - Anti-IL-21 antibody (ab5978)

ab5978 at 2ug/ml staining of IL21 in K562 cells.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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