



[Go to Product page](#)

Datasheet for ABIN964709

anti-IL-21 antibody (AA 24-152)

1 Image

Overview

Quantity:	100 µg
Target:	IL-21 (IL21)
Binding Specificity:	AA 24-152
Reactivity:	Cow, Horse, Pig
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This IL-21 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA

Product Details

Immunogen:	<p>This protein-A purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a recombinant protein raised in yeast, corresponding to amino acid residues 24-152 of bovine IL-21 protein.</p> <p>Immunogen Type: RecombinantProtein</p>
Isotype:	IgG
Specificity:	<p>This product was Protein-A purified from monospecific antiserum by chromatography. This antibody is specific for bovine IL-21 protein. A BLAST analysis was used to suggest cross-reactivity with IL-21 from bovine sources based on 100% homology with the immunizing sequence. Based on 92% homology, there is a chance of cross-reactivity to porcine IL- 21, 91% to horse IL-21, 89% to human and dog, 88% to macaque, 84% to platypus and Syrian hamster, 76-79% to mouse, 75% to rat, and 48% to chicken. Cross-reactivity with IL-21 from other sources has not been determined.</p>

Product Details

Cross-Reactivity: Pig (Porcine), Horse (Equine)

Characteristics: Interleukin-21 (IL-21) is a secreted, type-I cytokine with immunoregulatory activity. Human IL-21 shares the common gamma-chain with IL-2, IL-4, IL-7, IL-9, and IL-15 proteins but, in addition, binds to a unique IL-21Ralpha chain which triggers a cascade of events which includes activation of the tyrosine kinases JAK1 and JAK3, followed by activation of the transcription factors STAT1 and STAT3. Bovine and human IL-21 have pleiotropic functions and are mainly produced by activated T-cells in response to antigenic stimulation, but target a broad range of lymphoid and myeloid cells of the immune system (T cells, B cells, natural killer (NK) cells and dendritic cells). IL21 is therefore is able to regulate innate and acquired immune responses. The biological effects of IL-21 include induction of differentiation, maturation, and proliferation of T-cells-stimulated B-cells into plasma cells and memory B-cells, stimulation (in conjunction) with IL-4 of IgG production, and induction of apoptotic effects in naive B-cells and stimulated B-cells in the absence of T-cell signaling. Human IL-21 has also been shown to promote the anti-tumor activity of CD8+ T-cells and NK cells. During T-cell mediated immune response, IL21 may inhibit dendritic cells' (DC) activation and maturation. In synergy with IL15 and IL18, IL21 stimulates interferon gamma production in T-cells and NK cells, with the IL15, it may play a role in proliferation and maturation of natural killer (NK) cells. The open reading frame of the bovine IL-21 cDNA is 459 bp in length and encodes 152 amino acids. The predicted amino acid sequence is 78-81% and 58-67% homologous to the predicted human and murine IL-21 amino acid sequences, respectively. In one study, recombinant bovine IL-21 strongly induced NK cell proliferation using a human NK cell-line, NK0, and enhanced the lymphokine activated killer (LAK) activity of bovine peripheral blood mononuclear cells. In another by the same authors, recombinant bovine mature IL-21 induced the proliferation of human IL-2-dependent cells, ILT-MAT. Anti-IL-21 antibody is ideal for investigators involved in Cancer and Immunology research.

Sterility: Sterile filtered

Target Details

Target: IL-21 (IL21)

Alternative Name: IL21 ([IL21 Products](#))

Background: Interleukin-21 (IL-21) is a secreted, type-I cytokine with immunoregulatory activity. Human IL-21 shares the common γ -chain with IL-2, IL-4, IL-7, IL-9, and IL-15 proteins but, in addition, binds to a unique IL-21R α chain which triggers a cascade of events which includes activation of the tyrosine kinases JAK1 and JAK3, followed by activation of the transcription factors STAT1 and STAT3. Bovine and human IL-21 have pleiotropic functions and are mainly produced by

Target Details

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Gene ID: 378475

UniProt: [Q76LU5](#)

Pathways: [JAK-STAT Signaling](#), [Regulation of Leukocyte Mediated Immunity](#), [Positive Regulation of Immune Effector Process](#), [Production of Molecular Mediator of Immune Response](#)

Application Details

Application Notes: IL-21 is expressed in activated CD4-positive T-cells but not in CD8-positive T-cells, B-cells, or monocytes, and in HL-60 and THP-1 cell lines. This protein-A purified antibody has been tested for use in ELISA and western blotting. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 15.1 kDa in size corresponding to bovine IL-21 protein by western blotting in the appropriate cell lysate or extract.

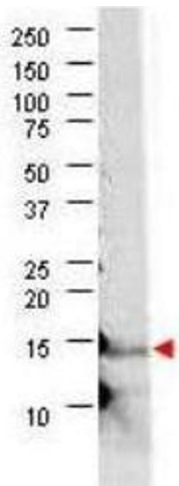
Comment: Gene Name: IL21

Restrictions: For Research Use only

Handling

Format:	Liquid
Reconstitution:	Reconstitution Buffer: Restore with deionized water (or equivalent), Reconstitution Volume: 100 μ L
Concentration:	1.0 mg/mL
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	Sodium azide
Precaution of Use:	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C/-20 °C
Storage Comment:	Store vial at 4 °C prior to restoration. For extended storage aliquot contents and freeze at -20 °C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4 °C as an undiluted liquid. Dilute only prior to immediate use. Expiration date is one (1) year from date of opening.
Expiry Date:	12 months

Images



Western Blotting

Image 1. Western blot using anti-bovine IL-21 antibody shows detection of recombinant bovine IL-21 at 15.1kDa (arrow) raised in yeast. Protein was purified and resolved by SDS-PAGE, transferred to PVDF membrane. Membrane was blocked with 3% BSA (BSA-30, diluted 1:10), and probed with , Inc. Anti-bovine IL-21. After washing, membrane was probed with 649 Conjugated Anti-Rabbit IgG (H&L) (Donkey) Antibody .