

Product datasheet for **AP09162PU-S**

IL21 Rabbit Polyclonal Antibody

Product data:

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|-----------------------|---|
| Product Type: | Primary Antibodies |
| Applications: | ELISA, WB |
| Recommended Dilution: | ELISA: 1/6,000. Western Blot: 1 µg/mL. |
| Reactivity: | Bovine |
| Host: | Rabbit |
| Isotype: | IgG |
| Clonality: | Polyclonal |
| Immunogen: | Recombinant protein raised in yeast, corresponding to amino acid residues 24-152 of bovine IL-21 protein |
| Specificity: | This antibody reacts to Interleukin-21. |
| Formulation: | 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 containing 0.01% (w/v) Sodium Azide State: Aff - Purified State: Liquid (sterile filtered) |
| Concentration: | lot specific |
| Purification: | Affinity chromatography on Protein A |
| Conjugation: | Unconjugated |
| Storage: | Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing. |
| Stability: | Shelf life: one year from despatch. |
| Database Link: | Entrez Gene 378475 Bovine Q76LU5 |



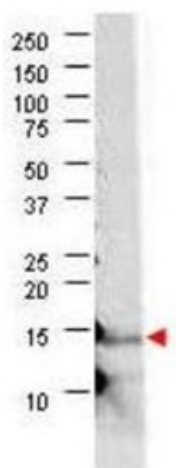
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Background:

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-21Ra 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

Synonyms:

IL-21, Za11

Product images:


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 Immunochemicals, Inc. Anti-bovine IL-21. After washing, membrane was probed with Dylight (TM) 649 Conjugated Anti-Rabbit IgG (H&L) (Donkey) Antibody