

## Anti-IL-21 Antibody

Catalog Number: A00459

### About IL21

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 gamma chain, gammac, 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.

### Overview

|                      |                                                                                                                                                                                                |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Name         | Anti-IL-21 Antibody                                                                                                                                                                            |
| Reactive Species     | Human, Mouse, Rat                                                                                                                                                                              |
| Description          | Boster Bio Anti-IL-21 Antibody (Catalog # A00459). Tested in ELISA, WB, ICC applications. This antibody reacts with Human, Mouse, Rat.                                                         |
| Application          | ELISA, ICC, WB                                                                                                                                                                                 |
| Clonality            | Polyclonal                                                                                                                                                                                     |
| Formulation          | IL-21 Antibody is supplied in PBS containing 0.02% sodium azide.                                                                                                                               |
| Storage Instructions | IL-21 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. Avoid repeated freeze-thaw cycles. Antibodies should not be exposed to prolonged high temperatures. |
| Host                 | Rabbit                                                                                                                                                                                         |
| Uniprot ID           | Q9HBE4                                                                                                                                                                                         |

### Technical Details

|                            |                                                                                                                                                                                                  |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Immunogen                  | Anti-IL-21 antibody was raised against a peptide corresponding to 15 amino acids near the center of human IL-21 precursor. The immunogen is located within the last 50 amino acids of IL-21.     |
| Predicted Reactive Species | Bovine, Pig                                                                                                                                                                                      |
| Cross Reactivity           | At least two isoforms of IL-21 are known to exist; this antibody will detect both isoforms. IL-21 antibody is predicted to not cross-react with other members of the interleukin protein family. |
| Isotype                    | IgG                                                                                                                                                                                              |
| Form                       | Liquid                                                                                                                                                                                           |
| Concentration              | 1 mg/ml                                                                                                                                                                                          |
| Purification               | IL-21 Antibody is affinity chromatography purified via peptide column.                                                                                                                           |

**Suggested Dilutions**

Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.

If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.

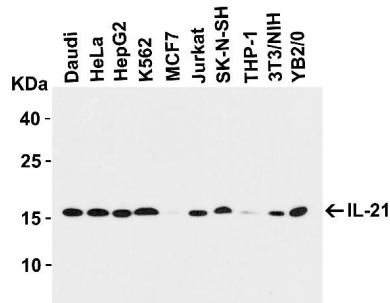
Some PubMed article(s) citing the expression level of this target are as follows:

Boster Bio's internal QC testing used:

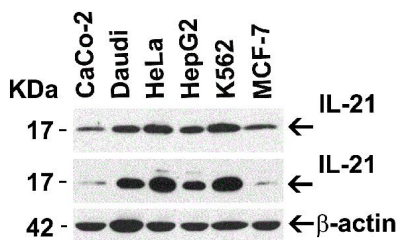
WB: 1 ug/mL; ICC: 2 ug/mL.

Antibody validated: Western Blot in human, mouse and rat samples; Immunocytochemistry in human samples. All other applications and species not yet tested. Optimal dilutions for each application should be determined by the researcher.

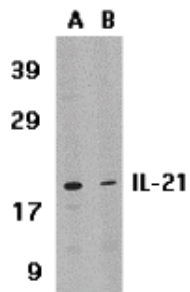
## Anti-IL-21 Antibody (A00459) Images



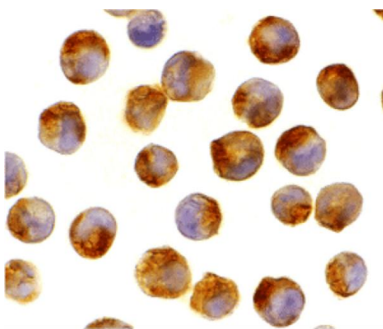
Western Blot Validation in Human, Mouse and Rat Cell Lines  
Loading: 15 ug of lysates per lane. Antibodies: IL-21 A00459, (1 ug/mL), 1h incubation at RT in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



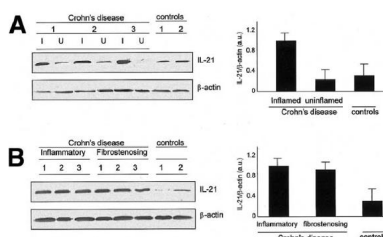
Independent Antibody Validation (IAV) via Protein Expression Profile in Cell Lines  
Loading: 15 ug of lysates per lane. Antibodies: IL-21 A00459 (1 ug/mL), IL-21 (5 ug/mL), beta-actin (5 ug/mL) and beta-actin (1 ug/mL), 1h incubation at RT in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



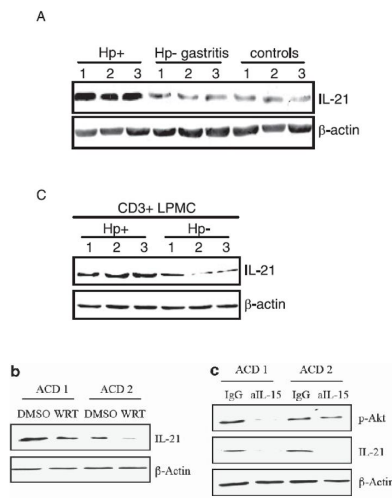
Western Blot Validation in Human HL-60 Cell Lysate  
Loading: 15 ug of lysates per lane. Antibodies: IL-21 A00459 (1 ug/mL), 1h incubation at RT in 5% NFDM/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution. (A) Absence of blocking peptide (B) Presence of blocking peptide.



Immunocytochemistry Validation of IL-21 in K562 Cells  
Immunocytochemical analysis of K562 cells using anti-IL-21 antibody (A00459) at 2 ug/mL. Cells were fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody overnight at 4° C. A goat anti-rabbit IgG H&L (HRP) at 1/250 was used as secondary. Counter stained with Hematoxylin.



Induced Expression Validation of IL-21 expression in patients with Crohn's Disease (Monteleone et al)



Induced Expression Validation of IL-21 expression in patients with Helicobacter Pylori (Hp) (Caruso et al.

Regulation of IL-21 expression in duodenal biopsies of two patients with active Celiac disease (ACD) (Sarraf et al.

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