

## Anti-IL7 Antibody Picoband®

Catalog Number: PB9871

### About IL7

Interleukin 7 (IL-7) is a protein that in humans is encoded by the IL7 gene. The protein encoded by this gene is a cytokine important for B and T cell development. This cytokine and the hepatocyte growth factor (HGF) form a heterodimer that functions as a pre-pro-B cell growth-stimulating factor. And it is found to be a cofactor for V(D)J rearrangement of the T cell receptor beta (TCRB) during early T cell development. In addition, this cytokine can be produced locally by intestinal epithelial and epithelial goblet cells, and may serve as a regulatory factor for intestinal mucosal lymphocytes. Knockout studies in mice suggested that this cytokine plays an essential role in lymphoid cell survival. Alternative splicing results in multiple transcript variants encoding distinct isoforms. Additional splice variants have been described but their presence in normal tissues has not been confirmed.

### Overview

|                      |  |
|----------------------|--|
| Product Name         | Anti-IL7 Antibody Picoband®  |
| Reactive Species     | Mouse, Rat   |
| Description          | Boster Bio Anti-IL7 Antibody Picoband® catalog # PB9871. Tested in IHC, WB applications. This antibody reacts with Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.   |
| Application          | IHC, WB  |
| Clonality            | Polyclonal   |
| Formulation          | Each vial contains antibody formulated with stabilizing components, 0.9 mg NaCl, 0.2 mg Na <sub>2</sub> HPO <sub>4</sub> , and 0.05 mg NaN <sub>3</sub> .<br>*This antibody is supplied in a stabilized formulation.<br>Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required. |
| Storage Instructions | Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.  |
| Host                 | Rabbit   |
| Uniprot ID           | P10168   |

### Technical Details

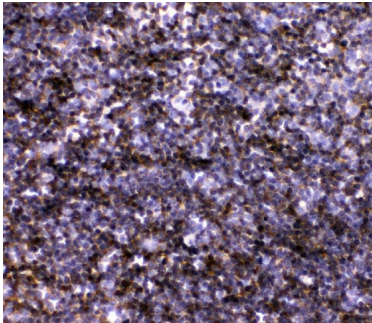
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| Immunogen | E. coli-derived mouse IL7 recombinant protein (Position: E26-I154). Mouse IL7 shares 56.4% and 87.6% amino acid (aa) sequence identity with human and rat IL7, respectively. |
|-----------|--|

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|-------------------------------|--|
| Recommended Detection Systems | Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P). |
| Cross Reactivity              | No cross-reactivity with other proteins.   |
| Isotype                       | Rabbit IgG   |
| Form                          | Lyophilized  |
| Concentration                 | Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.  |
| Purification                  | Immunogen affinity purified.   |
| Suggested Dilutions           | Western blot, 0.1-0.5ug/ml, Mouse<br>Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Mouse, Rat  |

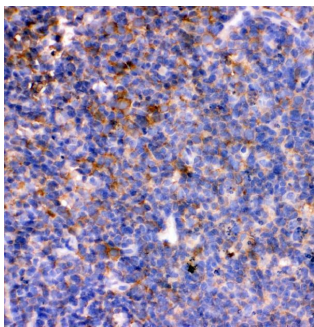
## Anti-IL7 Antibody Picoband® (PB9871) Images



Western blot analysis of IL7 using anti-IL7 antibody (PB9871). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: mouse brain tissue lysates, Lane 2: mouse thymus tissue lysates, Lane 3: NIH3T3 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-IL7 antigen affinity purified polyclonal antibody (Catalog # PB9871) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for IL7 at approximately 20 kDa. The expected band size for IL7 is at 18 kDa.



IHC analysis of IL7 using anti-IL7 antibody (PB9871). IL7 was detected in a paraffin-embedded section of mouse lymph nodes tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-IL7 Antibody (PB9871) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.



IHC analysis of IL7 using anti-IL7 antibody (PB9871). IL7 was detected in a paraffin-embedded section of rat lymph nodes tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-IL7 Antibody (PB9871) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

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Anti-IL7 Antibody

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