

AP01124BT-N**Polyclonal Antibody to Interleukin-15 / IL15 - Biotin****Alternate names:**

IL-15

Quantity:

50 µg

Background:

IL15 (114 amino acids) is a cytokine that regulates T and natural killer cell activation and proliferation. It has a predicted molecular mass of approximately 12.5 kDa. Human IL15 shares approximately 97% and 73% amino acid sequence identity with simian and mouse IL15, respectively. Both human and simian IL15 are active on mouse cells. IL15 was initially isolated from the simian kidney epithelial cell line CV1/EBNA. It has also been isolated from mouse and human cell sources. The cytokines IL15 and IL2 share many biological properties and stimulatory activities (T, B, and NK cells). Both IL15 and IL2 stimulate mouse CTLL2 cells. In activated peripheral blood T lymphocytes, IL2 is highly expressed but the expression of IL15 is not detectable. There is no sequence homology between IL15 and IL2, though computer modeling indicates both possess a four alpha helical bundle structure. IL15 competes for binding sites with IL2, as both IL2 and IL15 stimulate the growth of cells through the IL2 receptor. IL15 mRNA is expressed in many cell types and tissues including adherent peripheral blood mononuclear cells, fibroblasts, and epithelial cells, monocytes, placenta, and skeletal muscle.

IL-15 (14-15 kD) is a member of the four alpha-helical bundle family of cytokines. It is very similar to IL-2, except that IL-15 has an IL-15 alpha receptor subunit. IL-15 plays an important role in the growth and differentiation of T and B lymphocytes, natural killer cells, macrophages, and monocytes as well as activation of a number of important intracellular signaling molecules. This implies that IL-15 could be essential for the immune responses, allograft rejection, and the pathogenesis of autoimmune diseases.

Uniprot ID:[P48346](#)**NCBI:**[NP_032383.1](#)**GeneID:**[16168](#)**Host:**

Rabbit

Immunogen:Highly pure (> 98%) E.coli derived recombinant Murine IL-15 (*Cat. -No* PA162).**Format:****State:** Lyophilized Sterile filtered Ig fraction**Purification:** Affinity Chromatography**Buffer System:** PBS, pH 7.2 without preservatives**Label:** Biotin**Reconstitution:** Restore in sterile PBS containing 0.1% BSA to a concentration of 0.1-1.0 mg/ml.**Applications:****Direct ELISA:** To detect Murine IL-15 by Direct ELISA (using 100 µl/well antibody solution) a concentration of ~1.0 µg/ml of this antibody is required.

This Biotin conjugated antibody allows the detection of at least 0.2-0.4 ng/well of recombinant Murine IL-15.

Sandwich ELISA: To detect Murine IL-15 by Sandwich ELISA (using 100 µl/well

antibody solution) a concentration of 0.25-1.0 µg/ml is required. This Biotin conjugated antibody in conjunction with Polyclonal Anti-Murine IL-15 antibody (Cat.-No AP01124PU-N or AP01124PU-S) as a Capture antibody, allows the detection of at least 0.2-0.4 ng/well of recombinant Murine IL-15.

Western Blot: To detect Murine IL-15 by Western Blot analysis this antibody can be used at a concentration of 0.1-0.2 µg/ml. Used in conjunction with compatible secondary reagents the detection limit for recombinant Murine IL-15 is 1.5-3.0 ng/lane, under either reducing or non-reducing conditions. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: This antibody detects Interleukin-15.

Species: Mouse.

Other species not tested.

Add. Information: Centrifuge vial prior to opening.

Storage: Store the lyophilized antibody at -20°C.
Following reconstitution it is stable for two weeks at 2-8°C.
Frozen aliquots are stable for 6 months when stored at -20°C.
Avoid repeated freezing and thawing.
Shelf life: One year from despatch.

General Readings: 1. Miyazaki S, Ishikawa F, Shimizu K, Ubagai T, Edelstein PH, Yamaguchi K. Gr-1high polymorphonuclear leukocytes and NK cells act via IL-15 to clear intracellular Haemophilus influenzae in experimental murine peritonitis and pneumonia. J Immunol. 2007 Oct 15;179(8):5407-14. PubMed PMID: 17911627.