

## Anti-IL-4 Antibody

Catalog Number: A00230-2

### About IL4

Ubiquitin-editing enzyme that contains both ubiquitin ligase and deubiquitinase activities. Involved in immune and inflammatory responses signaled by cytokines, such as TNF-alpha and IL-1 beta, or pathogens via Toll-like receptors (TLRs) through terminating NF-kappa-B activity. Essential component of a ubiquitin-editing protein complex, comprising also RNF11, ITCH and TAX1BP1, that ensures the transient nature of inflammatory signaling pathways. In cooperation with TAX1BP1 promotes disassembly of E2-E3 ubiquitin protein ligase complexes in IL-1R and TNFR-1 pathways; affected are at least E3 ligases TRAF6, TRAF2 and BIRC2, and E2 ubiquitin-conjugating enzymes UBE2N and UBE2D3. In cooperation with TAX1BP1 promotes ubiquitination of UBE2N and proteasomal degradation of UBE2N and UBE2D3. Upon TNF stimulation, deubiquitinates 'Lys-63'-polyubiquitin chains on RIPK1 and catalyzes the formation of 'Lys-48'-polyubiquitin chains. This leads to RIPK1 proteasomal degradation and consequently termination of the TNF- or LPS-mediated activation of NF-kappa-B. Deubiquitinates TRAF6 probably acting on 'Lys-63'-linked polyubiquitin. Upon T-cell receptor (TCR)-mediated T-cell activation, deubiquitinates 'Lys-63'-polyubiquitin chains on MALT1 thereby mediating disassociation of the CBM (CARD11:BCL10:MALT1) and IKK complexes and preventing sustained IKK activation. Deubiquitinates NEMO/IKBKG; the function is facilitated by TNIP1 and leads to inhibition of NF-kappa-B activation. Upon stimulation by bacterial peptidoglycans, probably deubiquitinates RIPK2. Can also inhibit I-kappa-B-kinase (IKK) through a non-catalytic mechanism which involves polyubiquitin; polyubiquitin promotes association with IKBKG and prevents IKK MAP3K7-mediated phosphorylation. Targets TRAF2 for lysosomal degradation. In vitro able to deubiquitinate 'Lys-11-', 'Lys-48'- and 'Lys-63' polyubiquitin chains. Inhibitor of programmed cell death. Has a role in the function of the lymphoid system. Required for LPS-induced production of proinflammatory cytokines and IFN beta in LPS-tolerized macrophages.

Opipari A.W. Jr., J. Biol. Chem. 265:14705-14708(1990).

Mungall A.J., Nature 425:805-811(2003).

Eliopoulos A.G., J. Virol. 73:1023-1035(1999).

### Overview

|                      |                                                                                                                                            |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Product Name         | Anti-IL-4 Antibody                                                                                                                         |
| Reactive Species     | Human, Mouse, Rat                                                                                                                          |
| Description          | Boster Bio Anti-IL-4 Antibody catalog # A00230-2. Tested in WB applications. This antibody reacts with Human,Mouse,Rat.                    |
| Application          | WB                                                                                                                                         |
| Clonality            | Polyclonal                                                                                                                                 |
| Formulation          | Rabbit IgG, 1mg/ml in PBS with 0.02% sodium azide, 50% glycerol, pH7.2                                                                     |
| Storage Instructions | Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles. |
| Host                 | Rabbit                                                                                                                                     |
| Uniprot ID           | P05112                                                                                                                                     |

## Technical Details

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Immunogen                  | Synthesized peptide derived from human Tuberin around the phosphorylation site of Y1571.                                                                                                                                                                                                                                                                                                                                            |
| Predicted Reactive Species | Canine, Monkey                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Cross Reactivity           | No cross reactivity with other proteins.                                                                                                                                                                                                                                                                                                                                                                                            |
| Isotype                    | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Form                       | Liquid                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Concentration              | 1 mg/ml                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Purification               | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE).                                                                                                                                                                                                                                                                         |
| Suggested Dilutions        | <p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>WB: 1:500-1:1000</p> |

## Anti-IL-4 Antibody (A00230-2) Images

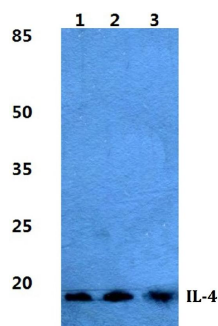


Figure 1. Western blotting validation for Anti-IL-4 Antibody A00230-2

Western blot (WB) analysis of IL-4 polyclonal antibody at 1:500 dilution

Lane1:MCF-7 cell lysate

Lane2:sp2/0 cell lysate

Lane3:PC12 cell lysate

Electrophoresis was performed on a SDS-PAGE gel. To determine SDS-PAGE gel concentration

## 1 Publications Citing This Product

1. PubMed ID: 33683631, Zhao N, Wang T, Peng L, Li Y, Zhao Y, Yu S. Attenuation of Inflammation by DJ-1 May Be a Drug Target for Cerebral Ischemia-Reperfusion Injury. *Neurochem Res.* 2021 Mar 8. doi: 10.1007/s11064-021-03288-z. Epub ahead of print. PMID: 33683631.

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