



## IL-4 Rat monoclonal antibody

Catalog: MB65863

Host: Rat

Reactivity: Mouse

### BackGround:

IL-4 is produced by T cells, NK T cells,  $\gamma\delta$  cells, and mast cells. Target cells include B cells, T cells, and macrophages. IL-4 induces the polarization of naïve helper T cells into the TH2 phenotype. IL-4 also promotes B cell proliferation, antibody class switching and the production of other TH2 cytokines including IL-5 and IL-9. IL-4 induced TH2 polarization is important in developing humoral immunity against extracellular pathogens and is involved in the development of allergy and asthma. IL-4 binds to two distinct receptors, the Type I receptor and Type II receptor. Type I receptor is a heterodimer consisting of IL-4R $\alpha$  chain and the common gamma chain,  $\gamma_c$ . Type II receptor, which is shared with IL-13, is a heterodimer of IL-4R $\alpha$  and IL-13R $\alpha$ 1. Signaling initiated via Type I receptor results in the activation of Jak1/Stat6, Jak3 and the PI3K/Akt pathways. The Type II receptor activates the Jak1/Stat6 and the Tyk2/Stat3 pathways.

### Product:

Rat IgG1 kappa. Liquid in PBS, pH 7.3, and 0.02% sodium azide.

### Molecular Weight:

~ 15 kDa

### Swiss-Prot:

P07750

### Purification&Purity:

The monoclonal antibody was affinity-purified from rat antiserum by affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE).

### Applications:

IF (1/50 - 1/200)

### Storage&Stability:

Store at 4 °C short term. Aliquot and store at -20 °C long term. Avoid freeze-thaw cycles.

### Specificity:

Recognizes mouse IL-4

### DATA:

### Note:

For research use only, not for use in diagnostic procedure.

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