



## Mouse Anti-Human IL-15 Monoclonal Antibody Datasheet

**Product Name:** mAb anti-Human IL-15

**Clone No.:** 5E8

**Catalogue No.:** MO-C40095A

**Quantity:**

**Description:** Mouse monoclonal antibody to human interleukin-15 (IL-15)

**Product Type:** Primary antibody, **capture antibody** in matched antibody pair

**Purification:** Protein G affinity purified

**Target Protein:** Human IL-15

**Immunogen:** Purified recombinant human IL-15

**Fusion Myeloma:** SP2/0

**Specificity:** Reactive with human IL-15

**Species Reactivity:** Human, others not tested

**Host / Isotype:** Mouse, IgG1 Kappa

**Formulation:** Lyophilized from a solution in 0.01M PBS, pH 7.0

**Reconstitution:** Double distilled water is recommended to reconstitute the antibody to 1mg/ml

**Storage:** Store at -20°C

**Research Area:** Cytokine. Inflammatory diseases

**Background:** Interleukin (IL)-15 is an inflammatory cytokine that can induce tumor-necrosis factor- $\alpha$ , IL-1 $\beta$  and inflammatory chemokines. It acts on T cells and natural killer cells through receptors on these cells. IL-15 and IL-2 share common receptor  $\beta$  and  $\gamma$  units (IL-15/IL-2R $\beta\gamma$ )

and thus some overlapping functions in stimulating T-cell proliferation and cytokine secretion. However, both cytokines have its own specific receptor  $\alpha$  (IL-15R $\alpha$  or IL-2R $\alpha$ ) that links to distinct signaling pathways. For example, IL-15 can inhibit self-tolerance mediated by IL-2 mediated activation-induced T cell death, and promote CD8+ memory T-cell survival. Increased IL-15 expression has been reported in patients with psoriasis and other inflammatory autoimmune diseases.

IL-15 exists as soluble form, as well as membrane-bound form in which it could be directly bound to the cellular membrane or presented by IL-15R $\alpha$  receptor. The main mechanism of IL-15 signaling is trans-presentation which is initiated by IL-15 binding to IL-15R $\alpha$ . The IL-15/IL-15R $\alpha$  complex subsequently presents IL-15 to surrounding cells bearing IL-15R $\beta\gamma$  complex on their cell surface.

Recent research showed that combined activation with IL-12, IL-15, and IL-18 can induce memory-like natural killer (NK) cells that live longer and exhibit enhanced functionality when they encounter a secondary stimulation. The progress has led to increased interest in using IL-15 for cancer therapy.

**Applications:** **Sandwich ELISA:** In combination with human IL-15 detection antibody (clone

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B1H6, Cat. No.: MO-C40095B), this IL-15 antibody clone 5E8 can be used as capture antibody in Sandwich ELISA application for quantitative measurement of IL-15. The standard curve range is 1000 pg/mL to 15.6 pg/mL.

**References:** If research is published using this product, please inform Anogen in order to cite the reference on this datasheet. Anogen will provide one unit of product in the same category as gratitude.

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