

DESCRIPTION

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| Species Reactivity | Cotton Rat |
| Specificity | Detects cotton rat IL-10 in Western blots. In Western blots, approximately 25% cross-reactivity with recombinant rat IL-10 and recombinant mouse IL-10 is observed and less than 5% cross-reactivity with recombinant canine IL-10, recombinant human IL-10, recombinant porcine IL-10, and recombinant feline IL-10 is observed. |
| Source | Polyclonal Goat IgG |
| Purification | Antigen Affinity-purified |
| Immunogen | <i>E. coli</i> -derived recombinant cotton rat IL-10 Ser1-Ser160 (Cys149Tyr) Accession # AAK94013 |
| Formulation | Lyophilized from a 0.2 µm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details. |

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

| | Recommended Concentration | Sample |
|---------------------|---------------------------|---|
| Western Blot | 0.1 µg/mL | Recombinant Cotton Rat IL-10 (Cys149Tyr) (Catalog # 581-CR) |

PREPARATION AND STORAGE

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| Reconstitution | Reconstitute at 0.2 mg/mL in sterile PBS. |
| Shipping | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. |
| Stability & Storage | <p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution. |

BACKGROUND

IL-10, initially designated cytokine synthesis inhibitory factor (CSIF), was originally identified as a product of murine T helper 2 (Th2) clones that inhibited the cytokine production by Th1 clones that is dependent upon stimulation with antigen in the presence of antigen presenting cells (APC).

IL-10 is a pleiotropic cytokine that can exert either immunostimulatory or immunosuppressive effects on a variety of cell types. It is a potent immunosuppressant of macrophage functions. *In vitro*, IL-10 can inhibit the accessory function and antigen-presenting capacity of monocytes by, among other effects, downregulating class II MHC expression. Thus, IL-10 can inhibit monocyte/macrophage-dependent, antigen stimulated cytokine synthesis (especially IFN-γ) by human PBMC and NK, and mouse Th1 cells. Additionally, IL-10 is a potent inhibitor of monocyte/macrophage activation and its resultant cytotoxic effects. As an immunostimulatory cytokine, IL-10 can act on B cells to enhance their viability, cell proliferation, Ig secretion, and class II MHC expression. Aside from B lymphocytes, IL-10 is also a growth co-stimulator for thymocytes and mast cells, as well as an enhancer of cytotoxic T cell development.

References:

1. Moore, K.W. *et al.* (1993) *Annu. Rev. Immunol.* **11**:165.