



Recombinant Protein Technical Manual
Recombinant Rat IL0/Interleukin0 Protein (Active)
RPES3847

Product Data:

Product SKU: RPES3847

Size: 10µg

Species: Rat

Expression host: E. coli

Uniprot: NP_036986.2

Protein Information:

Molecular Mass: 18.6 kDa

AP Molecular Mass: 18 kDa

Tag:

Bio-activity: Measured in a cell proliferation assay using MC/9-2 mouse mast cells. The ED50 for this effect is typically 2-8 ng/mL.

Purity: > 80 % as determined by SDS-PAGE

Endotoxin: Please contact us for more information.

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from sterile PBS, 10 % glycerol.

Reconstitution: Please refer to the printed manual for detailed information.

Application: Cell Culture

Synonyms: IL10;I10

Immunogen Information:

Sequence: Ser19-Asn178

Background:

IL0 is a anti-inflammatory cytokine which belongs to the IL0 family. It is produced by a variety of cell lines, including T-cells, macrophages, mast cells and other cell types, while it is produced primarily by monocytes and to a lesser extent by lymphocytes. IL0 is mainly expressed in monocytes and Type 2 T helper cells (TH2), mast cells, CD4+CD25+Foxp3+ regulatory T cells, and also in a certain subset of activated T cells and B cells. IL0 has pleiotropic effects in immunoregulation and inflammation. It down-regulates the expression of Th1 cytokines, MHC class II Ags, and costimulatory molecules on macrophages. It also enhances B cell survival, proliferation, and antibody production. IL0 can block NF-kappa B activity, and is involved in the regulation of the JAK-STAT signaling pathway. Knockout studies in mice suggested the function of this cytokine as an essential immunoregulator in the intestinal tract. The importance of interleukin 10 for counteracting excessive immunity in the human body is revealed by the fact that patients with Crohn's disease react favorably towards treatment with bacteria producing recombinant IL0. IL0 inhibits the synthesis of a number of cytokines, including IFN-gamma, IL-2, IL-3, TNF and GM-CSF produced by activated macrophages and by helper T-cells. It also displays a potent ability to suppress the antigen-presentation capacity of antigen presenting cells. However, it is also stimulatory towards certain T cells and mast cells and stimulates B cell maturation and antibody production.