

Recombinant Porcine Interleukin 10

Cat. No. IL10-79P **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Porcine Interleukin-10 produced in <i>E.coli</i> is a single, glycosylated polypeptide chain containing 160 amino acids and having a molecular mass of 18458 Dalton. The IL-10 is purified by proprietary chromatographic techniques.
Species	Pig
Source	E.coli
Description	IL10 is a cytokine produced primarily by monocytes and to a lesser extent by lymphocytes. This cytokine 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. This cytokine 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.
Amino Acid Sequence	The sequence of the first five N-terminal amino acids was determined and was found to be Met-Ser-Ile-Lys-Ser.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Purity	Greater than 95.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.

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Formulation	The protein was lyophilized with no additives.
Solubility	It is recommended to reconstitute the lyophilized Interleukin 10 in sterile 18 MΩ-cm H ₂ O not less than 100 g/ml, which can then be further diluted to other aqueous solutions.
Specific Activity	The ED ₅₀ as determined by the dose-dependant stimulation of MC/9 cell which was found to be < 15 ng/ml.
Protein Content	Protein quantitation was carried out by two independent methods: UV spectroscopy at 280 nm using the absorbency value of 0.36 as the extinction coefficient for a 0.1% (1 mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics). 2. Analysis by RP-HPLC, using a calibrated solution of IL-10 as a Reference Standard.
Stability	Lyophilized Interleukin-10 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IL10 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

GENE INFORMATION

Gene Name	IL10 interleukin 10 [<i>Sus scrofa</i>]
Synonyms	interleukin 10; IL10; IL-10
Gene ID	397106
mRNA Refseq	NM_214041

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Protein Refseq	NP_999206
UniProt ID	Q29055
Pathway	Allograft rejection; Asthma; Autoimmune thyroid disease; Cytokine-cytokine receptor interaction; Jak-STAT signaling pathway; Systemic lupus erythematosus; T cell receptor signaling pathway

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