



RayBiotech, Inc.

3607 Parkway Lane suite 200

Norcross, GA 30092

Tel: 770-729-2992, 1-888-494-8555

Fax: 770-206-2393

Website: www.raybiotech.com

Email: info@raybiotech.com

Recombinant Human Interleukin-10

--- Western Blotting Control

Catalog No.	Size	Species	Protein Accession No.
230-00006-WBC	100 μ L (20 lanes)	Human	NP_000563

Synonyms

Interleukin-10; IL-10; IL10; human cytokine synthesis inhibitory factor (CSIF).

Description

Humans IL-10 is one of anti-inflammatory cytokine and is mainly expressed in monocytes and Type 2 T helper cells (TH2), mast cells, etc. It not only down-regulates the expression of MHC class II antigens, Th1 cytokines, and costimulatory molecules on macrophages, also enhances the survival, proliferation, and antibody production of B cells. IL-10 has been shown to interact with IL-10 receptor, alpha subunit. Knockout IL-10 mice revealed the function of IL-10 cytokine as an essential immunoregulator in the mice intestinal tract.

Preparation

The full-length of human *IL-10* gene was cloned and expressed in *Escherichia coli*. The truncated recombinant protein has an *N*-terminal 6 \times histidine tag and was purified by immobilized metal ion affinity chromatography (IMAC).

Source

Recombinant histidine-tagged protein, purified from *E. coli*.

Predicted Molecular Mass

~22.5 kDa with the 6 \times histidine tag.

Formulation

Liquid. Supplied in 1 \times SDS Loading Buffer (60 mM Tris-HCl, pH 6.8, 2% SDS, 10% glycerol, 5% 2-mercaptoethanol, 0.002% bromphenol blue).

Storage

The protein is stable at -20 $^{\circ}$ C freezer.

Purity

>95%, determined by SDS-PAGE and stained with Commassie blue.

Applications

Before use, heat the WBC control at 95 $^{\circ}$ C for 5 minutes. Spin down the sample and load 5 μ L per lane onto SDS-PAGE gel.

References

1. Ho, AS, et al. (1993). A receptor for interleukin 10 is related to interferon receptors. *Proc. Natl. Acad. Sci.* 90 (23): 11267–71.
2. Josephson, K, et al (2001) Crystal structure of the IL-10/IL-10R1 complex reveals a shared receptor binding site. *Immunity*.15 (1): 35–46.
3. Braat H, et al. (2006). A phase I trial with transgenic bacteria expressing interleukin-10 in Crohn's disease. *Clin. Gastroenterol. Hepatol.* 4 (6): 754–9.
4. Zdanov A, et al. (1995). Crystal structure of interleukin-10 reveals the functional dimer with an unexpected topological similarity to interferon gamma. *Structure* 3 (6): 591–601.
5. Pestka S, et al. (2004). Interleukin-10 and related cytokines and receptors. *Annu. Rev. Immunol.* 22: 929–79.
6. Grimbaldston MA, et al. (2007). Mast cell-derived interleukin 10 limits skin pathology in contact dermatitis and chronic irradiation with ultraviolet B. *Nat. Immunol.* 8 (10): 1095–104.

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**