Recombinant Human Interleukin-10(rHu IL-10)

Catalog No: #70110



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Product Name	Recombinant Human Interleukin-10(rHu IL-10)
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Brief Description	Recombinant Protein
Host Species	E.coli
Purification	> 95 % by SDS-PAGE and HPLC analyses.
Species Reactivity	Hu
Target Name	rHu IL-10
Other Names	CSIF
Accession No.	accession:P22301 GeneID:3586
Uniprot	P22301
GeneID	3586;
Calculated MW	Approximately 18.6 kDa, a sing
SDS-PAGE MW	Sterile Filtered White lyophil
Target Sequence	SPGQGTQSEN SCTHFPGNLP NMLRDLRDAF SRVKTFFQMK DQLDNLLLKE SLLEDFKGYL GCQALSEMIQ
	FYLEEVMPQA ENQDPDIKAH VNSLGENLKT LRLRLRRCHR FLPCENKSKA VEQVKNAFNK LQEKGIYKAM
	SEFDIFINYI EAYMTMKIRN
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.
Storage	This lyophilized preparation is stable at 2-8 °C, but should be kept at -20 °C for long term storage, preferably
	desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 °C. For maximal stability,
	apportion the reconstituted preparation into working aliquots and store at -20 °C to -70 °C. Avoid repeated
	freeze thaw cycles.

Background

Interleukin-10 (IL-10), also known as cytokine synthesis inhibitory factor (CSIF), is the charter member of the IL-10 family of α -helical cytokines that also includes IL-19, IL-20, IL-22, IL-24, and IL-26 AK155. IL-10 is secreted by many activated hematopoietic cell types as well as hepatic stellate cells, keratinocytes, and placental cytotrophoblasts. Whereas human IL-10 is active on mouse cells, mouse IL-10 does not act on human cells. IL-10 is a 178 amino acid molecule that contains two intrachain disulfide bridges and is expressed as a 36 kDa noncovalently associated homodimer. The IL-10 dimer binds to two IL-10 R α IL-10R1 chains, resulting in recruitment of two IL-10 R β IL-10R2 chains and activation of a signaling cascade involving JAK1, TYK2, and STAT3. IL-10R β does not bind IL-10 by itself but is required for signal transduction. IL-10 is a critical molecule in the control of viral infections and allergic and autoimmune inflammation. It promotes phagocytic uptake and Th2 responses but suppresses antigen presentation and Th1 proinflammatory responses.

References

- 1. Eskdale J, Kube D, Tesch H, et al. 1997. Immunogenetics. 46:120-8.
- 2. Tan JC, Braun S, Rong H, et al. 1995. J Biol Chem. 270:12906-11.
- 3. Pestka S, Krause CD, Sarkar D, et al. 2004. Annu Rev Immunol. 22:929-79.

Note: This product is for in vitro research use only