

## IL-10 Protein, Human

Cat. No.:	HY-P7030
Synonyms:	rHuIL-10; CSIF
Species:	Human
Source:	E. coli
Accession:	P22301 (S19-N178)
Gene ID:	3586
Molecular Weight:	Approximately 18.6 kDa

### PROPERTIES

AA Sequence	<p>           S P G Q G T Q S E N    S C T H F P G N L P    N M L R D L R D A F    S R V K T F F Q M K            D Q L D N L L L K E    S L L E D F K G Y L    G C Q A L S E M I Q    F Y L E E V M P Q A            E N Q D P D I K A H    V N S L G E N L K T    L R L R L R R C H R    F L P C E N K S K A            V E Q V K N A F N K    L Q E K G I Y K A M    S E F D I F I N Y I    E A Y M T M K I R N         </p>
Biological Activity	<p>1. The ED<sub>50</sub> is typically 1- 8 ng/mL as measured by MC/9-2 mouse mast cells in a cell proliferation assay.</p> <p>2. Immobilized human IL10 at 10 µg/mL (100 µL/well) can bind Cynomolgus IL10RA-Fc and the EC<sub>50</sub> of Cynomolgus IL10RA-Fc is 0.24-0.56 µg/mL.</p> <p>3. Immobilized human IL10 at 2 µg/mL (100 µL/well) can bind Cynomolgus IL10RA-Fc and the EC<sub>50</sub> of Cynomolgus IL10RA-Fc is 0.1-0.3 µg/mL.</p>
Appearance	Lyophilized powder
Formulation	Lyophilized after extensive dialysis against 20mM Tris, 20mM NaCl, pH 6.5. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

Background	Interleukin 10 (IL-10) is an anti-inflammatory, immunomodulatory cytokine that regulates mucosal inflammation. A promising alternative is interleukin 10 (IL-10), a cytokine with multiple anti-inflammatory and immunoregulatory activities,
------------	---

---

including inhibition of T-cell/macrophage activation and proinflammatory cytokine synthesis<sup>[1]</sup>. IL-10, a cytokine possessing strong anti-inflammatory properties, is under investigation for its therapeutic use as an immunosuppressant. The immunosuppressive actions of IL-10 and corticosteroids include inhibition of proinflammatory cytokine production by monocytes and polymorphonuclear leukocytes (IFN- $\gamma$ , TNF- $\alpha$ , IL-1 $\beta$ , IL-6, GM-CSF) both at the protein and messenger RNA levels and prevention of mitogen-induced T-cell proliferation<sup>[2]</sup>.

---

## REFERENCES

---

[1]. Fedorak RN, et al. Recombinant human interleukin 10 in the treatment of patients with mild to moderately active Crohn's disease. The Interleukin 10 Inflammatory Bowel Disease Cooperative Study Group. *Gastroenterology*. 2000 Dec;119(6):1473-82.

[2]. Chakraborty A, et al. Pharmacodynamic interaction of recombinant human interleukin-10 and prednisolone using in vitro whole blood lymphocyte proliferation. *J Pharm Sci*. 2002 May;91(5):1334-42.

---

**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA