

## Human IL10 protein, His tag (active)

**Cat. No. GTX00086-pro****Applications** Functional Assay**Species** Human**Package**

10 µg

## Applications

**Application Note**

Interleukin 10 (IL-10), also known as human cytokine synthesis inhibitory factor (CSIF), is an anti-inflammatory cytokine. IL-10 was initially reported to suppress cytokine secretion, antigen presentation and CD4 T cell activation. Further investigation has shown that IL-10 predominantly inhibits lipopolysaccharide (LPS) mediated induction of the pro-inflammatory cytokines TNF $\alpha$ , IL-1 $\beta$ , IL-12, and IFN $\gamma$  made by cells such as macrophages and Th1 T cells. Therefore, THP-1 cells were cultured in 24 well plates at a concentration of 10<sup>6</sup> cells/ml and activated by LPS (1 µg/ml) in the absence or presence of IL-10 (5 ng/ml, 10 ng/ml) for 24h and production of IL-1 $\beta$  was determined in the supernatants by cytokine specific ELISA. Activation of THP-1 cells with LPS (1 µg/ml) resulted in high levels of production of IL-1 $\beta$  and strong inhibitory effects of IL-10 (5 ng/ml, 10 ng/ml) were observed on the production of IL-1 $\beta$ .

**Observed MW (kDa)** 18 kDa.

## Properties

**Form** Lyophilized powder**Buffer** Reconstitute with 20mM Tris and 150mM NaCl to 0.1-1.0mg/ml. Do not vortex. Lyophilized from 20mM Tris, 150mM NaCl, 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose.**Preservative** ProClin 300**Storage** For short-term storage (1-2 weeks), store at 4°C. For long-term storage, store at -20°C or below. After reconstitution, keep as concentrated solution. Avoid freeze-thaw cycles.**Region/Sequence** N-terminal His-Tag; Ser19~Asn178 (NP\_000563.1)**Expression System** HEK293 cells**Purity** > 97%**Endotoxin** < 1 EU/µg**Conjugation** Unconjugated**Note** For laboratory use only. Not for any clinical, therapeutic, or diagnostic use in humans or animals. Not for animal or human consumption.

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DATA IMAGES

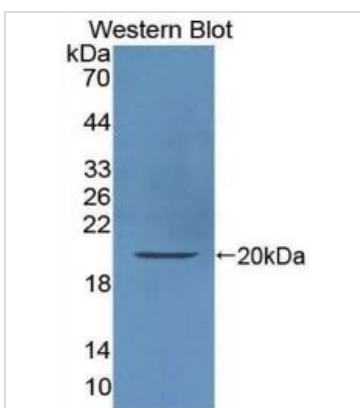
**Effects of IL-10 on IL-1 $\beta$  production by THP1 cells**

Sample (cell supernatant of THP1 cells)	O.D.value	Corrected	Concentration of IL-1 $\beta$ (ng/ml)
Unstimulated	0.151	-0.009	<2.343
Stimulated with LPS (1 $\mu$ g/ml)	0.676	0.516	19.9
Stimulated with LPS (1 $\mu$ g/ml) and IL-10 (5ng/ml)	0.160	0.000	<2.343
Stimulated with LPS (1 $\mu$ g/ml) and IL-10 (10ng/ml)	0.150	-0.010	<2.343

**GTX00086-pro Functional Assay Image**

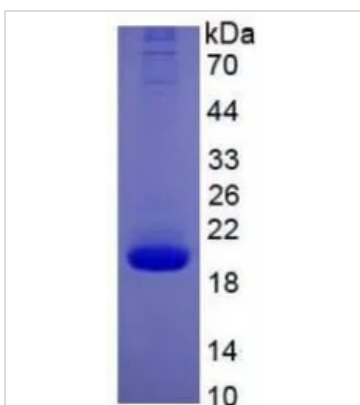
ELISA detection of secreted IL-1 $\beta$  protein expression from 1  $\mu$ g/ml LPS mediated THP-1 cells reduced by GTX00086-pro Human IL10 protein (active).

Recombinant protein concentrations: 5, and 10 ng/ml.



**GTX00086-pro Image**

WB analysis of GTX00086-pro Human IL10 protein (active).



**GTX00086-pro Image**

SDS-PAGE analysis of GTX00086-pro Human IL10 protein (active).



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