

## Human IL10 protein, His tag (active)

Cat. No. GTX00086-pro

Application	Functional Assay
Species	Human

Package  
10 µg

## APPLICATION

## 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 106 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 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.



For full product information, images and publications, please visit our [website](#).

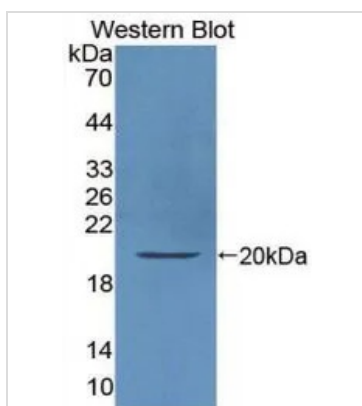
**DATA IMAGES**

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

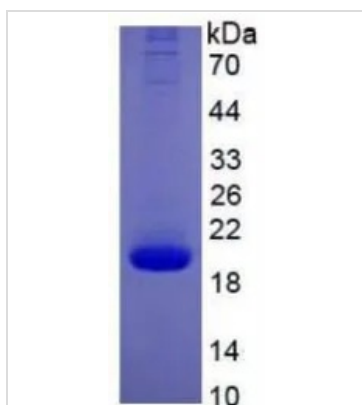
**GTx00086-pro Functional Assay Image**

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).



For full product information, images and publications, please visit our [website](https://www.genetex.com).