

# Cynomolgus IL-6 Protein; His Tag

## Product Information

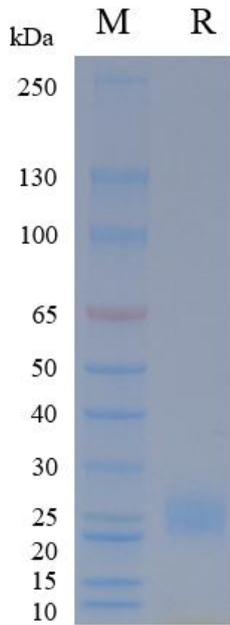
<b>Product Name</b>	Cynomolgus IL-6 Protein; His Tag
<b>Storage temp</b>	Store at $\leq -70^{\circ}\text{C}$ , stable for 6 months after receipt. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.
<b>Catalog# / Size</b>	<b>GM-88531RP-100 / 100 <math>\mu\text{g}</math></b> <b>GM-88531RP-1000 / 1 mg</b>

## Protein Information

<b>Alternative Names</b>	IL6, Interleukin-6, BSF2, HSF, IFNB2
<b>Source</b>	Cynomolgus IL-6 Protein; His Tag (GM-88531RP) is expressed from human 293 cells (HEK-293). It contains AA Ala 28 - Met 212 (Accession # P79341-1). This protein carries a His tag at the N-terminus.
<b>Purity</b>	> 95% as determined by SDS-PAGE
<b>Endotoxin</b>	< 1 EU/ $\mu\text{g}$ , determined by LAL gel clotting assay
<b>Predicted Mol Mass</b>	21.8 KDa
<b>Formulation</b>	Supplied as a 0.2 $\mu\text{m}$ filtered solution of PBS, pH7.2-7.4.
<b>Description</b>	Interleukin-6 (IL-6) is a multifunctional cytokine produced by various cell types, including immune cells, fibroblasts, and adipocytes, in response to infections, inflammation, and tissue injury. It can act as both a pro- and anti-inflammatory mediator. IL-6 signals through a receptor complex composed of the IL-6 receptor (IL-6R) and the signal-transducing subunit gp130 (CD130). Classic signaling occurs when IL-6 binds to membrane-bound IL-6R, recruiting gp130 to trigger downstream pathways; trans-signaling occurs when IL-6 binds to soluble IL-6R (sIL-6R), enabling gp130 activation on cells that lack membrane IL-6R. IL-6 binding to its receptor complex activates the JAK/STAT pathway, primarily leading to phosphorylation and activation of STAT3, which then dimerizes and translocates to the nucleus to regulate gene expression involved in inflammation, cell survival, and proliferation. In parallel, IL-6 signaling engages the MAPK and PI3K-AKT pathways, contributing to cellular growth and metabolic responses. IL-6 signaling is tightly regulated by negative feedback inhibitors (e.g., SOCS proteins) and can influence a wide range of physiological processes, from acute-phase responses to hematopoiesis and metabolism.

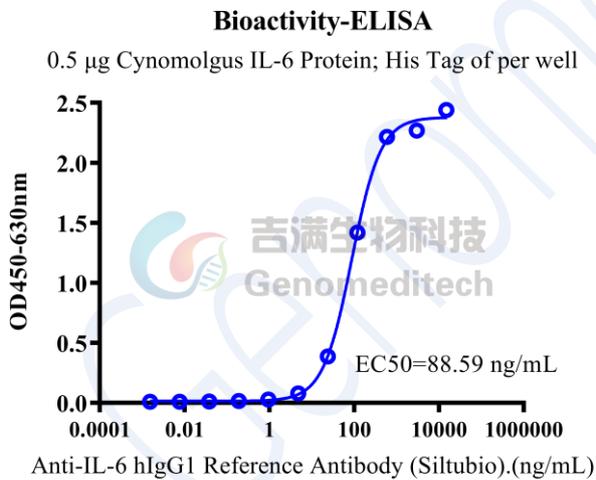
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## SDS-PAGE

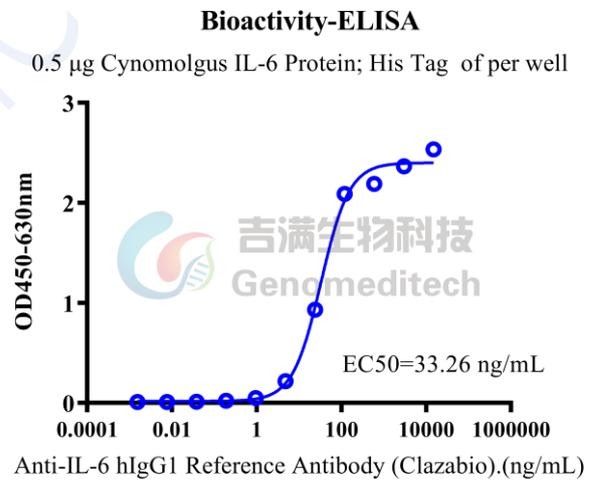


On SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

## Bioactivity-ELISA



Cynomolgus IL-6 Protein; His Tag (Catalog # GM-88531RP) was immobilized at 5  $\mu\text{g}/\text{ml}$  (100  $\mu\text{L}/\text{well}$ ). Increasing concentrations of Anti-IL-6 hIgG1 Reference Antibody (Siltubio) (Catalog # GM-88118MAB) were added.



Cynomolgus IL-6 Protein; His Tag (Catalog # GM-88531RP) was immobilized at 5  $\mu\text{g}/\text{ml}$  (100  $\mu\text{L}/\text{well}$ ). Increasing concentrations of Anti-IL-6 hIgG1 Reference Antibody (Clazabio) (Catalog # GM-88119MAB) were added.