

Cynomolgus TNF alpha Protein; His Tag

Product Information

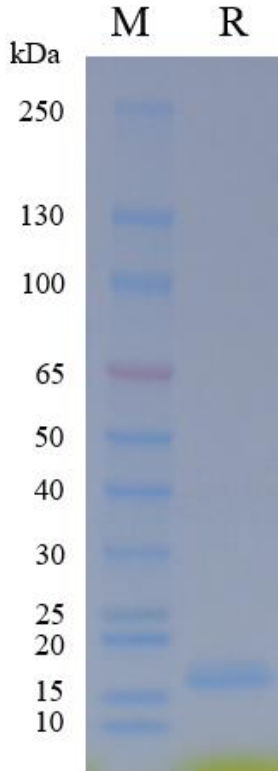
Product Name	Cynomolgus TNF alpha Protein; His Tag
Storage temp	Store at $\leq -70^{\circ}\text{C}$, stable for 6 months after receipt. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.
Catalog# / Size	GM-88489RP-100 / 100 μg GM-88489RP-1000 / 1 mg

Protein Information

Alternative Names	DIF, TNFA, TNFSF2, cachexin, cachectin, TNF α
Source	Cynomolgus TNF alpha Protein; His Tag (GM-88489RP) is expressed from human 293 cells (HEK-293). It contains AA Val 77 - Leu 233 (Accession # P79337). This protein carries a His tag at the C-terminus.
Purity	> 95% as determined by SDS-PAGE
Endotoxin	< 1 EU/ μg , determined by LAL gel clotting assay
Predicted Mol Mass	18.1 KDa
Formulation	Supplied as a 0.2 μm filtered solution of PBS, pH7.2-7.4.
Description	<p>TNF alpha protein (Tumor Necrosis Factor alpha) is a pro-inflammatory cytokine that belongs to the tumor necrosis factor (TNF) superfamily. It is encoded by the TNF gene and is a protein associated with the human immune system. TNF alpha protein was initially discovered in serum of endotoxin-treated mice and later detected in various immune cells, including macrophages, T cells, natural killer (NK) cells, and mast cells.</p> <p>TNF alpha protein regulates the activity of immune cells by binding to its receptors, TNFR1 (TNF Receptor 1) and TNFR2 (TNF Receptor 2), on the surface of various cell types. Macrophages and T cells are important types of immune cells with the ability to directly kill tumor cells and infected cells, as well as orchestrate inflammatory responses, making them crucial members of the immune system.</p> <p>Research indicates that TNF alpha protein plays a significant role in regulating immune cell activity, promoting inflammation, and modulating immune responses. Additionally, the aberrant expression of TNF alpha protein is associated with chronic inflammatory diseases, autoimmune disorders (such as rheumatoid arthritis, inflammatory bowel disease, and psoriasis), as well as with tumor development and immune evasion, making it a potential target for immunotherapy, including anti-TNF alpha monoclonal antibodies (e.g., infliximab, adalimumab) for autoimmune diseases and cancer therapy.</p>

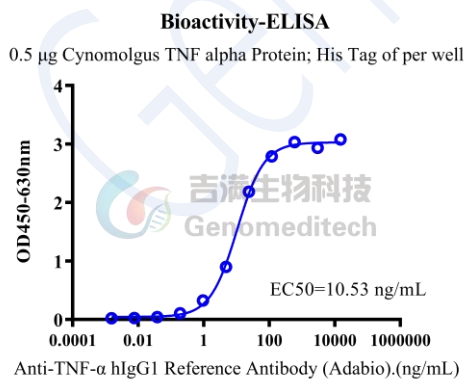
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SDS-PAGE

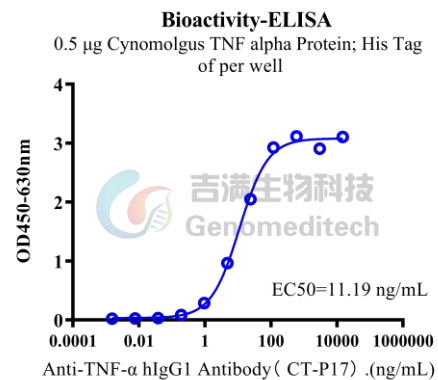


On SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

Bioactivity-ELISA



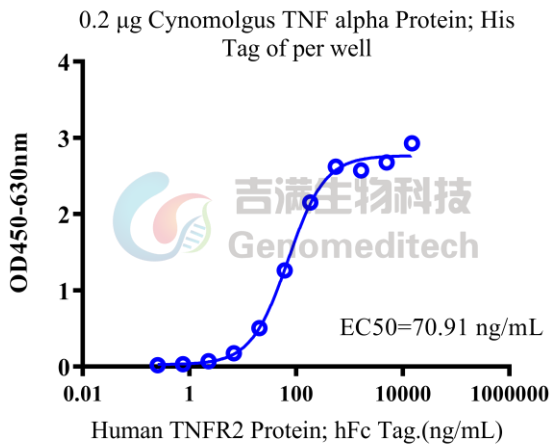
Cynomolgus TNF alpha Protein; His Tag (Catalog # GM-88489RP) was immobilized at 5 µg/ml (100 µL/well). Increasing concentrations of Anti-TNF-α hIgG1 Reference Antibody (Adabio) (Catalog # GM-87987MAB) were added.



Cynomolgus TNF alpha Protein; His Tag (Catalog # GM-88489RP) was immobilized at 5 µg/ml (100 µL/well). Increasing concentrations of Anti-TNF-α hIgG1 Antibody (CT-P17) (Catalog # GM-49267AB) were added.

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Bioactivity-ELISA



Cynomolgus TNF alpha Protein; His Tag (Catalog # GM-88489RP) was immobilized at 2 $\mu\text{g}/\text{ml}$ (100 $\mu\text{L}/\text{well}$).

Increasing concentrations of Human TNFR2 Protein; hFc Tag (Catalog # GM-88214RP) were added.