

Human IL-6 Protein; hFc Tag

Product Information

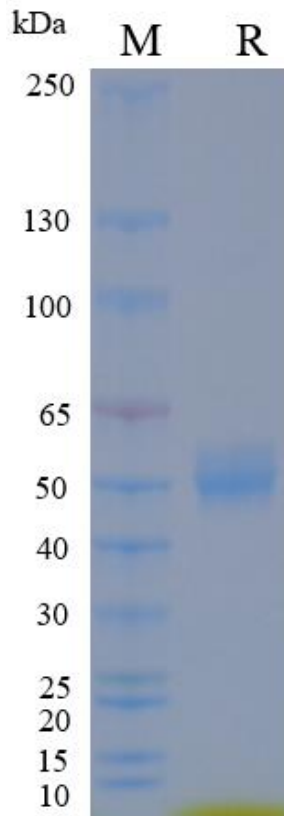
Product Name	Human IL-6 Protein; hFc Tag
Storage temp	Store at $\leq -70^{\circ}\text{C}$, stable for 6 months after receipt. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.
Catalog# / Size	GM-88764RP-100 / 100 μg GM-88764RP-1000 / 1 mg

Protein Information

Alternative Names	Interleukin-6, BSF2, HSF, IFNB2
Source	Human IL-6 Protein; hFc Tag (GM-88764RP) is expressed from human 293 cells (HEK-293). It contains AA Val 30 - Met 212 (Accession # P05231-1). This protein carries a hFc tag at the N-terminus.
Purity	> 95% as determined by SDS-PAGE
Endotoxin	< 1 EU/ μg , determined by LAL gel clotting assay
Predicted Mol Mass	47.6 kDa
Formulation	Supplied as a 0.2 μm filtered solution of PBS, pH7.2-7.4.
Description	IL-6 protein, full name Interleukin-6, is an important soluble cytokine and a member of the interleukin family. IL-6 protein plays a crucial role in regulating immune responses, inflammation, hematopoiesis, and metabolic processes in normal physiological conditions. Abnormal expression of IL-6 protein is closely associated with the occurrence and development of various malignant tumors and chronic inflammatory diseases, including multiple myeloma, prostate cancer, breast cancer, colorectal cancer, and rheumatoid arthritis. In tumor cells and the tumor microenvironment, overexpression or dysregulated secretion of IL-6 protein can promote tumor cell proliferation, survival, angiogenesis, and metastasis through activation of the JAK/STAT3, PI3K/AKT, and MAPK signaling pathways, thereby contributing to tumor progression and therapy resistance. Elevated serum IL-6 levels are often correlated with poor prognosis and reduced treatment response in cancer patients. In summary, IL-6 protein plays a critical role in inflammation-driven tumorigenesis and cancer progression, and is of great significance for understanding the molecular mechanisms linking chronic inflammation to cancer, developing novel anti-inflammatory and targeted therapeutic strategies, and evaluating patient prognosis, particularly in the context of combination cancer therapy and immune-related adverse event management.

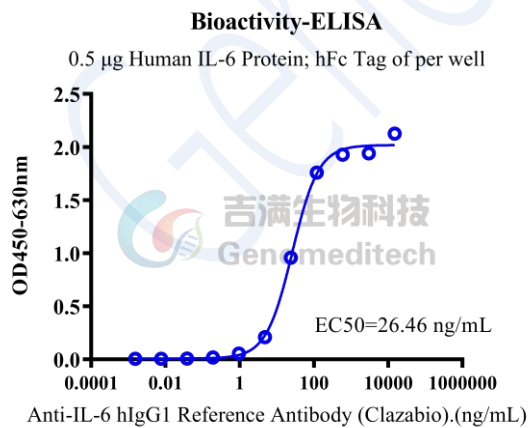
Version:4.0

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



Human IL-6 Protein; hFc Tag (Catalog # GM-88764RP) was immobilized at 5 µg/ml (100 µL/well). Increasing concentrations of Anti-IL-6 hIgG1 Reference Antibody (Clazabio) (Catalog # GM-88119MAB) were added.