IL-6 Protein, Cynomolgus (HEK293, His)

Cat. No.:	HY-P700749
Synonyms:	IFN-beta-2; IL6; IL-6; BSF-2; CDF; MGI-2A; Interleukin-6; HSF; IFNB2; HGF; IFN-β-2
Species:	Cynomolgus
Source:	HEK293
Accession:	P79341 (A28-M212)
Gene ID:	102138971
Molecular Weight:	25-30 kDa

PROPERTIES

Biological Activity	Immobilized Cynomolgus IL-6, His Tag at 2μg/ml (100μl/well) on the plate. Dose response curve for Human IL-6 R alpha, hFc Tag with the EC_{50} of 14.0ng/ml determined by ELISA.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4. Normally 8% trehalose is added as protectant before lyophilization.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	IL-6, a cytokine boasting a diverse array of biological functions spanning immunity, tissue regeneration, and metabolism, engages in a sophisticated signaling orchestration. Upon binding to IL6R, the resulting complex orchestrates the intracellular IL6-signaling pathway through its association with the signaling subunit IL6ST/gp130. Interactions with membrane-bound IL6R and IL6ST prompt 'classic signaling,' whereas binding of IL6 to soluble IL6R and IL6ST elicits 'trans-signaling.' Furthermore, 'cluster signaling' unfolds as membrane-bound IL6:IL6R complexes on transmitter cells activate IL6ST receptors on adjacent receiver cells. IL-6 serves as a potent inducer of the acute phase response, rapidly contributing to host defense during infection and tissue injury, yet its overproduction is implicated in disease pathology. In the innate immune response, IL-6 synthesis by myeloid cells, including macrophages and dendritic cells, is triggered upon pathogen recognition through toll-like receptors (TLRs) at the infection or injury site. Crucially, in the adaptive immune response, IL-6 is indispensable for the differentiation of B cells into immunoglobulin-secreting cells, a pivotal player in the differentiation of CD4(+) T cell subsets, and a key factor in the development of T follicular helper (Tfh) cells crucial for germinal-center induction. Additionally, IL-6 is required to drive naive CD4(+) T cells toward the Th17 lineage and plays a crucial role in the

	proliferation of myeloma cells and the survival of plasmablast cells.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA