

Mouse IL-6, C-His Tag Protein

HA210667



Product name:	Mouse IL-6, C-His Tag
Species reactivity:	Mouse
Bio-Activity:	Testing in progress.
Protein construction description:	A DNA sequence encoding the mouse IL-6 protein (P08505) (Phe 25-Thr 211) was expressed with a His tag at the C-terminus.

Background: Interleukin-6 (IL-6) is a pleiotropic, alpha-helical, 22 - 28 kDa phosphorylated and variably glycosylated cytokine that plays important roles in the acute phase reaction, inflammation, hematopoiesis, bone metabolism, and cancer progression. Mature mouse IL-6 is 187 amino acids (aa) in length and shares 39% and 85% aa sequence identity with human and rat IL-6, respectively. IL-6 induces signaling through a cell surface heterodimeric receptor complex composed of a ligand binding subunit (IL-6 R alpha) and a signal transducing subunit (gp130). IL-6 binds to IL-6 R alpha, triggering IL-6 R alpha association with gp130 and gp130 dimerization. gp130 is also a component of the receptors for CLC, CNTF, CT-1, IL-11, IL-27, LIF, and OSM. Soluble forms of IL-6 R alpha are generated by both alternative splicing and proteolytic cleavage. In a mechanism known as trans-signaling, complexes of soluble IL-6 and IL-6 R alpha elicit responses from gp130-expressing cells that lack cell surface IL-6 R alpha. Trans-signaling enables a wider range of cell types to respond to IL-6, as the expression of gp130 is ubiquitous, while that of IL-6 R alpha is predominantly restricted to hepatocytes, monocytes, and resting lymphocytes. Soluble splice forms of gp130 block trans-signaling from IL-6/IL-6 R alpha but not from other cytokines that use gp130 as a co-receptor. IL-6, along with TNF-alpha and IL-1, drives the acute inflammatory response and the transition from acute inflammation to either acquired immunity or chronic inflammatory disease. When dysregulated, it contributes to chronic inflammation in obesity, insulin resistance, inflammatory bowel disease, arthritis, sepsis, and atherosclerosis. IL-6 can also function as an anti-inflammatory molecule, as in skeletal muscle where it is secreted in response to exercise. In addition, it enhances hematopoietic stem cell proliferation and the differentiation of Th17 cells, memory B cells, and plasma cells.

Purity:	>95% as determined by SDS-PAGE.
Endotoxin:	Less than 1.0 EU per µg by the LAL method.
Fragment region:	IL-6 (25-211)
Source:	HEK293
Accession:	P08505
Predicted molecular mass:	23.1 kD
Formulation:	Lyophilized from a 0.2 µm filtered solution of PBS, pH7.4, 5% Trehalose, 5% mannitol.
Reconstitution:	Reconstitute at 250 µg/ml in sterile water.
Storage:	Please avoid repeated freeze-thaw cycles. Samples are stable for up to twelve months from date of receipt at -20°C to -80°C. It is recommended that aliquot the reconstituted solution to minimize freeze-thaw cycles.

Hangzhou Huan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

Service mail:support@huabio.cn

华安生物
HUABIO
www.huabio.cn

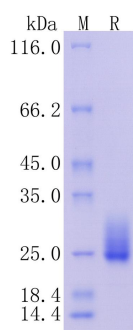


Fig1: Protein on SDS-PAGE under reducing (R) condition.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".
