

Recombinant Rhesus Macaque Interleukin-6 (Rhesus Macaque IL-6)

Product Information

Product Name	Cat#	Size
Recombinant Rhesus Macaque Interleukin-6 (Rhesus Macaque IL-6)	90136ES10	10 µg
	90136ES60	100 µg
	90136ES76	500 µg

Product Description

Interleukin-6 (IL-6) is a pleiotropic, alpha -helical, phosphorylated and variably glycosylated cytokine that plays important roles in the acute phase reaction, inflammation, hematopoiesis, bone metabolism, and cancer progression. Alternative splicing generates several isoforms with internal deletions, some of which exhibit antagonistic properties. 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, function to drive the acute inflammatory response and the transition from acute inflammation to either acquired immunity or chronic inflammatory disease.

Product Properties

Synonyms	interleukin BSF-2; interleukin-6; MGI-2A
Accession	P51494
Source	E.coli-derived Rhesus Macaque IL-16, Ala28-Met212.
Molecular Weight	Approximately 21.1 kDa.
AA Sequence	MAPVLPGEDS KNVAAPHSQP LTSSERIDKH IRYILDGISA LRKETCNRSN MCESSKEALA ENNLNLPKMA EKDGCFQSGF NEDTCLVKII TGLLEFEVYL EYLQNRFESE EEQARAVQMS TKVLIQFLQK KAKNLDAITT PEPTNASLL TKLQAQNQWL QDMTTHLILR SFKEFLQSNL RALRQM
Tag	None
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Purity	> 97% by SDS-PAGE and HPLC analyses.
Biological Activity	The ED ₅₀ as determined by a cell proliferation assay using IL-6-dependent murine 7TD1 cells is less than 0.1 ng/mL, corresponding to a specific activity of > 1.0 × 10 ⁷ IU/mg. Fully biologically active when compared to standard.
Endotoxin	< 1.0 EU per 1µg of the protein by the LAL method.

Formulation	Lyophilized from a 0.2 μ m filtered concentrated solution in 50 mM Tris-HCl, pH9.0, 600 mM NaCl, with 0.02 % Tween-20.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at $\leq -20^{\circ}\text{C}$. Further dilutions should be made in appropriate buffered solutions.

Shipping and Storage

The products are shipped with ice pack and can be stored at -20°C to -80°C for 1 year.

Recommend to aliquot the protein into smaller quantities when first used and avoid repeated freeze-thaw cycles.

Cautions

1. Avoid repeated freeze-thaw cycles.
2. For your safety and health, please wear lab coats and disposable gloves for operation.
3. For research use only.