

Recombinant Mouse IL-6 (carrier-free)

Catalog # / Size: 575702 / 10 µg
575704 / 25 µg
575706 / 100 µg
575708 / 500 µg

Source: Mouse IL-6, amino acids Phe25-Thr211 (Accession# NM_031168), was expressed in *E. coli*.

Molecular Mass: The 188 amino acid N-terminal methionylated recombinant protein has a predicted molecular mass of 21,866 Da. The DTT-reduced protein migrates at approximately 22 kD and the non-reduced protein migrates at approximately 21.5 kD by SDS-PAGE.

Purity: Purity is >98%, as determined by Coomassie stained SDS-PAGE.

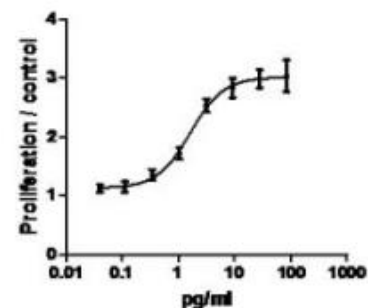
Endotoxin Level: Endotoxin level is <0.1 EU/µg (<0.01ng/µg) protein as determined by the LAL method.

Activity: The ED₅₀ is < 0.01 ng/ml, corresponding to a specific activity of > 1 × 10⁸ units/mg, as determined by the dose dependent stimulation of 7TD1 cell proliferation.

Preparation: 10-100µg sizes are bottled at 200µg/mL. 500µg sizes and larger are bottled at the concentration indicated on the vial.

Formulation: 0.22 µm filtered protein solution in Sodium Acetate and EDTA.

Storage: Unopened vial can be stored at 4°C for three months, at -20°C for six months, or at -70°C for one year. For maximum results, quick spin vial prior to opening. Stock solutions should be prepared at no less than 10µg/mL in buffer containing carrier protein such as 1% BSA or HSA or 10% FBS. For long term storage, aliquot into polypropylene vials and store in a manual defrost freezer. **Avoid repeated freeze/thaw cycles.**



7TD1 cell proliferation induced by mIL-6.

Applications:

Applications: Bioassay

- Application References:**
1. Wang Q, *et al.* 2010. *J. Immunol.* 185:834. PubMed
 2. Suzuki T, *et al.* 2011. *J. Biol Chem.* 286:31263. PubMed
 3. Alcaide P, *et al.* 2012. *J. Immunol.* 188:1421. PubMed
 4. Hilberath JN, *et al.* 2011. *FASEB J.* 25:1827. PubMed

Description: IL-6 is a multifunctional cytokine that can regulate various immune and inflammatory responses. Several studies have suggested a crucial role for IL-6 in angiogenesis. The use of mice deficient in IL-6 (-/-) demonstrated a critical role for this protein in a mouse model of lung angiogenesis. IL-6 has been shown to cause proliferation and migration of systemic endothelial cells in culture (1). The classical responsiveness to IL-6 is governed by a receptor complex consisting of two membrane-bound subunits, an 80-kD cognate chain (IL-6R), and a ubiquitously expressed 130-kD β -chain receptor (gp130) which acts as the universal signal-transducing element for all IL-6 family cytokines (2). Alternatively, IL-6 regulation of leukocyte trafficking relies upon signaling via its soluble IL-6R (termed IL-6 trans-signaling) (3). IL-6 plays a major role in regulating neutrophil clearance during acute peritoneal inflammation; as a result of specific down-regulation of neutrophil-attracting chemokine (CXCL1/KC) production (4). IL-6 is a key factor that reciprocally regulates Th17 and Foxp3(+) Treg differentiation by inhibition of TGF-beta induced Foxp3 and induction of RORgammat, a Th17 lineage-specific transcription factor (5).

- Antigen References:**
1. McClintock JE and Wagner EM. 2005. 99:861-866
 2. Murakami M. 1993. *Science* 260:1808-1810.
 3. Jones SA, *et al.* 2001. *J. FASEB.* 15:43-58.
 4. Fielding CA, *et al.* 2008. *J. Immunol.* 181:2189-2195.
 5. Sonderegger I, *et al.* 2008. *Eur. J. Immunol.* 38:1833-1838.



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