

Product Data Sheet

Recombinant Mouse IL-6 (ELISA Std.)

Catalog # / Size: 575709 / 4 pack

Source: Mouse IL-6, amino acids Phe25-Thr211 (Accession# MUSIL6), was expressed in *E. coli*.

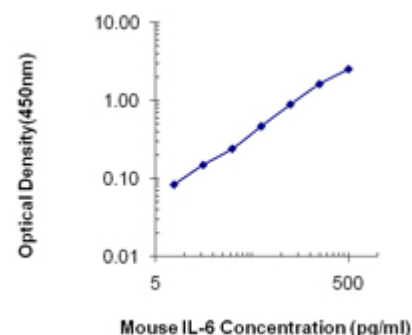
Molecular Mass: The 188 amino acid N-terminal methionylated recombinant protein has a predicted molecular mass of 21,866 Da. The DTT-reduced protein migrates at approximately 22kDa and the non-reduced protein migrates at approximately 21.5kDa by SDS-PAGE.

Purity: Purity is >98% as determined by SDS PAGE, Coomassie stained with Invitrogen SimplyBlue SafeStain.

Preparation: ELISA Standard 4-Pack contains four vials of recombinant mouse IL-6 at >5 ng per vial. Recommended for ELISA application only. Standards are calibrated against a BioLegend Master Calibrator.

Formulation: Lyophilized in sterile-filtered PBS, pH 7.2, containing 1% BSA.

Storage: Upon receipt, store unopened vials at 4°C immediately and use within 12 months from date of receipt. Prior to use, reconstitute the lyophilized powder with 0.2 ml of PBS containing a carrier protein (e.g., 1% BSA, protease free), pH7.4. Re-cap vial, vortex. Allow the reconstituted standard to sit at room temperature for 15 minutes, vortex again to mix completely. The reconstituted standard stock solution can be aliquoted into polypropylene vials and stored at -70°C for up to one month. Do not re-use diluted standards. Use a manual defrost freezer and avoid repeated freeze thaw cycles.



Applications:

Applications: ELISA

Recommended Usage: Each lot of this protein is quality control tested by ELISA assay. For use as an ELISA standard, a standard curve comprised of doubling dilutions from 500 pg/ml to 4 pg/ml is suggested. It is recommended that the reagent be titrated for optimal performance for each application.

Application Notes: This IL-6 protein is useful as a standard for a mouse IL-6 sandwich ELISA, using unlabeled MP5-20F3 antibody (Cat. No. 504502) for capture and biotinylated MP5-32C11 antibody (Cat. No. 504602) for detection.

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. 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. Alternatively, IL-6 regulation of leukocyte trafficking relies upon signaling via its soluble IL-6R (termed IL-6 trans-signaling). 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. 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.

Antigen References:

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



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