

Interleukin-6 (IL-6)

✓ 100 µl
(10 Western mini-blot)

Orders ■ 877-616-CELL (2355)
orders@cellsignal.com
Support ■ 877-678-TECH (8324)
info@cellsignal.com
Web ■ www.cellsignal.com

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This product is for *in vitro* research use only and is not intended for use in humans or animals.

| Molecular Wt. | Source | Purity |
|---------------|---------------------------|--------|
| 21.7 kDa | Human Recombinant Protein | >98% |

Background: Interleukin-6 (IL-6) is a pleiotropic cytokine with central roles in immune regulation, inflammation, hematopoiesis, and oncogenesis. Its biological activities are shared by other IL-6-family members such as leukemia inhibitory factor and oncostatin M (1). To exert its biological effects, IL-6 must bind to the IL-6 receptor (IL-6R), composed of two α chains (IL-6R α , 80 kDa) and two β chains (IL-6R β or gp130, 130 kDa). Two moieties of IL-6 and two pairs of these receptor chains form a functional hexameric IL-6R complex. The subsequent intracellular signaling events are activated via gp130, which is the common signal transducer of cytokines related to IL-6. Activation of the IL-6R stimulates at least three major signaling pathways: JAK/STAT, PI-3 kinase and MAPK signaling pathways (2,3).

Description: Human IL-6 cDNA was subcloned into a prokaryotic expression vector, expressed in *E. coli*, and recombinant human Interleukin-6 (rhIL-6) protein was purified.

Directions for Use: CST recommends using 50–100 ng/ml for stimulation of IL-6 signaling.

Concentration and Specific Activity: 100 µg/ml

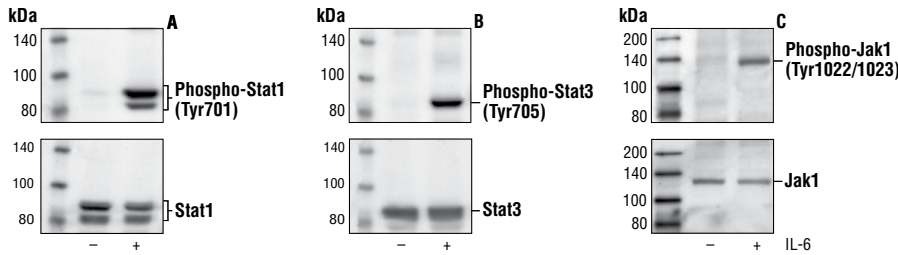
Background References:

- (1) Ito, H. (2003) *Curr. Drug Targets Inflamm. Allergy* 2, 125–130.
- (2) Taniguchi, T. (1995) *Science* 268, 251–255.
- (3) Boulton, T.G. et al. (1994) *J. Biol. Chem.* 269, 11648–11655.

Storage: Human IL-6 is supplied in PBS buffer containing 0.1% BSA. Aliquot and store at -80 C. Avoid repeated freeze-thaw cycles.

Companion Products:

- PhosphoPlus® Stat1 (Tyr701) Antibody Kit #9170
- Phospho-Stat1 (Tyr701) Antibody #9171
- Stat1 Antibody #9172
- PhosphoPlus® Stat3 (Tyr705) Antibody Kit #9130
- Phospho-Stat3 (Tyr705) Antibody #9131
- Stat3 Antibody #9132
- Phospho-Stat3 (Tyr705) (3E2) Mouse mAb #9138
- Stat3 (124H6) Mouse mAb #9139
- Phospho-Jak1 (Tyr1022/1023) Antibody #3331
- Jak1 Antibody #3332
- Cell Lysis Buffer (10X) #9803
- RIPA Buffer (10X) #9806
- Blue Loading Buffer Pack #7722
- Red Loading Buffer Pack #7723



Western blot analysis of extracts from human myeloma cells stimulated with rhIL-6 (100 ng/ml for 10 min.), using Phospho-Stat1 (Tyr701) Antibody #9171 (upper A), Stat1 Antibody #9172 (lower A), Phospho-Stat3 (Tyr705) Antibody #9131 (upper B), Stat3 Antibody #9132 (lower B), Phospho-Jak1 (Tyr1022/1023) Antibody #3331 (upper C) and Jak1 Antibody #3332 (lower C).