

## IL-6 (E-15): sc-323975

### BACKGROUND

Interleukin-6, or IL-6, is a multifunctional protein, 212 amino acids in length, that plays critical roles in host defense, immune response and hematopoiesis. IL-6 is constitutively expressed by epidermal Langerhans cells and its expression is induced in stimulated keratinocytes. IL-6, IL-1 $\beta$  and TNF $\alpha$  act as endogenous pyrogens, regulating the fever response to bacterial invasion. The IL-6 receptor is a trimeric complex composed of an IL-6-specific  $\alpha$  chain and a homodimer of the gp130 glycoprotein common to the IL-6, IL-11, CNTF, OSM and LIF receptors. Stimulation with IL-6 leads to gp130 homodimerization and the activation of associated kinases JAK1 and JAK2. Once activated, JAK1 and JAK2 phosphorylate Stat3, causing its nuclear translocation and transcription of Stat3-responsive genes. IL-6 has also been shown to activate the Ras/MAP kinase pathway, which regulates NF-IL-6 transcription.

### REFERENCES

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### CHROMOSOMAL LOCATION

Genetic locus: IL6 (human) mapping to 7p15.3.

### SOURCE

IL-6 (E-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of IL-6 of human origin.

### PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-323975 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

IL-6 (E-15) is recommended for detection of IL-6 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other Interleukin proteins.

IL-6 (E-15) is also recommended for detection of IL-6 in additional species, including equine and porcine.

Suitable for use as control antibody for IL-6 siRNA (h): sc-39627, IL-6 shRNA Plasmid (h): sc-39627-SH and IL-6 shRNA (h) Lentiviral Particles: sc-39627-V.

Molecular Weight of IL-6: 21 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

### STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

### RESEARCH USE

For research use only, not for use in diagnostic procedures.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.