

IL-6 (D6906B4): sc-53866

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 β and TNF α 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 α 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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4. Wijdenes, J., et al. 1995. Interleukin-6 signal transducer gp130 has specific binding sites for different cytokines as determined by antagonistic and agonistic anti-gp130 monoclonal antibodies. *Eur. J. Immunol.* 25: 3474-3481.
5. Wang, Y. and Fuller, G.M. 1995. Interleukin-6 and ciliary neurotrophic factor trigger Janus kinase activation and early gene response in rat hepatocytes. *Gene* 162: 285-289.
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7. Chai, Z., et al. 1996. Interleukin (IL)-6 gene expression in the central nervous system is necessary for fever response to lipopolysaccharide or IL-1 β : a study on IL-6-deficient mice. *J. Exper. Med.* 183: 311-316.

CHROMOSOMAL LOCATION

Genetic locus: IL6 (human) mapping to 7p21; Il6 (mouse) mapping to 5 B1.

SOURCE

IL-6 (D6906B4) is a rat monoclonal antibody raised against IL-6 of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Available azide-free for neutralization, sc-53866 L, 200 μ g/0.1 ml.

APPLICATIONS

IL-6 (D6906B4) is recommended for detection of IL-6 of human origin by solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for IL-6 siRNA (h): sc-39627.

Molecular Weight of IL-6: 21-28 kDa.

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 or our catalog for detailed protocols and support products.