IL-6 (E-4): sc-28343

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-1β and TNFα act as endogenous pyrogens, regulating the fever response to bacterial infection. The IL-6 receptor is a trimeric complex composed of an IL-6-specific 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.

CHROMOSOMAL LOCATION

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

SOURCE

IL-6 (E-4) is a mouse monoclonal antibody raised against amino acids 30-212 of IL-6 of human origin.

PRODUCT

Each vial contains 200 µg IgG2a kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

IL-6 (E-4) is available conjugated to agarose (sc-28343 AC), 500 µg/0.25 ml agarose in 1 ml, for IF, to HRP (sc-28343 HRP), 200 µg/ml, for WB, HIC(P) and ELISA; to either phycoerythrin (sc-28343 PE), fluorescein (sc-28343 FITC), Alexa Fluor® 488 (sc-28343 AF488), Alexa Fluor® 546 (sc-28343 AF546), Alexa Fluor® 594 (sc-28343 AF594) or Alexa Fluor® 647 (sc-28343 AF647), 200 µg/ml, for WB (RG6), IF, HIC(P) and FC; and to either Alexa Fluor® 680 (sc-28343 AF680) or Alexa Fluor® 790 (sc-28343 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FC.

APPLICATIONS

IL-6 (E-4) is recommended for detection of IL-6 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:10000), immunoprecipitation (1-2 µg per 100-500 µg of total protein (1 ml of cell lysate), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and 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, IL-6 shRNA (h) Lentiviral Particles: sc-39627-V.

Molecular Weight of IL-6: 21 kDa.

Positive Controls: IL-6 (h): 293T Lysate: sc-113126 or HeLa whole cell lysate: sc-2200.

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.

DATA

IL-6 (E-4): sc-28343. Western blot analysis of IL-6 expression in non-transfected: sc-117752 (A) and human IL-6 transfected: sc-113126 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS


PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

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