

IL-6R α (C-20): sc-661

BACKGROUND

IL-6 activates intracellular signaling through binding a receptor consisting of a ligand-binding protein (IL-6R α) and a second protein. IL-6 first binds to IL-6R α (also known as gp80), which subsequently associates with a gp130 dimer. The active signaling complex consists of, at minimum, IL-6, IL-6R α and a dimer of two gp130 proteins that are linked by a disulfide bond. A soluble form of IL-6R α , namely sIL-6R α , is generated by proteolytic cleavage of the membrane-bound precursor and can function as an agonistic molecule that can actively participate in cell-to-cell signaling. The second subunit of the IL-6 complex, gp130, also functions as a component of several additional receptor complexes, including leukemia inhibitory factor (LIF), Oncostatin M (OSM), ciliary neurotrophic factor (CNTF) and IL-11. LIF binds to the LIF receptor with low affinity and to a complex of the LIF receptor and gp130 with high affinity, while OSM appears to bind to gp130 with low affinity and to a complex of gp130 and the LIF receptor with high affinity.

CHROMOSOMAL LOCATION

Genetic locus: IL6R (human) mapping to 1q21.3.

SOURCE

IL-6R α (C-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of IL-6R α of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-661 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

IL-6R α (C-20) is recommended for detection of IL-6R α of human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

IL-6R α (C-20) is also recommended for detection of IL-6R α in additional species, including canine.

Suitable for use as control antibody for IL-6R α siRNA (h): sc-35663, IL-6R α shRNA Plasmid (h): sc-35663-SH and IL-6R α shRNA (h) Lentiviral Particles: sc-35663-V.

Molecular Weight of IL-6R α : 80 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, BJAB whole cell lysate: sc-2207 or Hep G2 cell lysate: sc-2227.

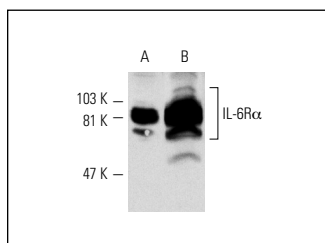
STORAGE

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

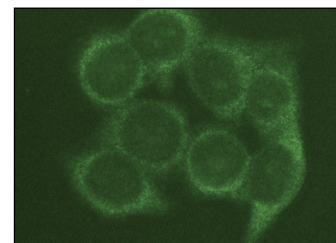
RESEARCH USE

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

DATA



IL-6R α (C-20): sc-661. Western blot analysis of IL-6 receptor α expression in HeLa (A) and BJAB (B) whole cell lysates.



IL-6R α (C-20): sc-661. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and membrane staining.

SELECT PRODUCT CITATIONS

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- Coward, J., et al. 2011. Interleukin-6 as a therapeutic target in human ovarian cancer. *Clin. Cancer Res.* 17: 6083-6096.
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Try **IL-6R α (H-7): sc-373708** or **IL-6R α (2B2.3): sc-71366**, our highly recommended monoclonal alternatives to IL-6R α (C-20). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **IL-6R α (H-7): sc-373708**.