



IL-6R α (hBA-338): sc-4598

BACKGROUND

IL-6 activates intracellular signaling through binding a receptor consisting of an 80 kDa ligand-binding protein (IL-6R α) and a second protein of 130 kDa (IL-6R β). IL-6 first binds to IL-6R α 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 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.

REFERENCES

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SOURCE

IL-6R α (hBA-338) is produced in HEK 293 as 37.6 kDa biologically active protein corresponding to 338 amino acids comprising the extracellular domain of human IL-6R α of human origin.

RESEARCH USE

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

PRODUCT

IL-6R α (hBA-338) is purified from bacterial lysates (>98%); supplied as 20 μ g purified protein.

BIOLOGICAL ACTIVITY

IL-6R α (hBA-338) is biologically active as determined by the ability of IL-6R α to intensify the IL-6-induced growth inhibition of murine M1 cells.

Expected ED₅₀: <5.0 ng/ml.

RECONSTITUTION

In order to avoid freeze/thaw damaging of the active protein, dilute protein when first used to desired working concentration. Either a sterile filtered standard buffer (such as 50mM TRIS or 1X PBS) or water can be used for the dilution. Store any thawed aliquot in refrigeration at 2° C to 8° C for up to four weeks, and any frozen aliquot at -20° C to -80° C for up to one year. It is recommended that frozen aliquots be given an amount of standard cryopreservative (such as Ethylene Glycol or Glycerol 5-20% v/v), and refrigerated samples be given an amount of carrier protein (such as heat inactivated FBS or BSA to 0.1% v/v) or non-ionic detergent (such as Triton X-100 or Tween 20 to 0.005% v/v), to aid stability during storage.

STORAGE

Store desiccated at -20° C; stable for one year from the date of shipment.

PROTOCOLS

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