Product Information

Interleukin-6 Receptor Soluble Fragment human

recombinant, expressed in Sf 21 cells

I5771

Description

A soluble form of the Interleukin-6 receptor (IL-6R) was initially identified in the urine of healthy adult humans[1], in culture supernatants from HTLV-I positive T cell lines[2] and in the serum of HIV-sero positive blood donors.[2] These soluble receptors may develop as a result of alternate splicing of the mRNA or as a result of proteolytic cleavage and release of the membrane-bound form of the receptor. Recombinant Interleukin-6 Receptor Soluble Fragment human was produced by cloning the cDNA of the IL6R and introducing a stop codon into the cDNA sequence immediately preceding the transmembrane domain. This was followed by infection of Sf 21 insect cells with recombinant baculovirus encoding the sequence for the truncated receptor. The IL-6 soluble receptor is 339 amino acid residues in length.[3] It may serve to transport IL-6, protecting IL-6 from proteolysis. Alternatively, the IL6 soluble receptor may act as an inhibitory agent to localize the activity of IL-6 or to bind IL-6 that is not bound to cell surface receptors. The bioactivity of IL-6 increases after binding to the soluble IL-6 receptor.

Reagent

Lyophilized from a 0.2 µm filtered solution of phosphate buffered saline, pH 7.4. containing 1.25 mg bovine serum albumin.

Precautions and Disclaimer

This product is for R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage

Prior to reconstitution, store at –20 °C for no more than 6 months. After reconstitution, store at 2-8 °C for a maximum of one month. For extended storage, freeze in working aliquots at -70 °C or –20 °C. Repeated freezing and thawing is not recommended.

Reconstitution and Use

Reconstitute the contents of the vial using 0.2 µm-filtered phosphate buffered saline containing 0.1% HSA or BSA to a concentration of not less than 5 µg/mL.

Product Profile

The biological activity is measured by its ability to increase the IL-6 induced inhibition of mouse M1 myeloid leukemia cells.[4] The ED_{50} is defined as the effective concentration of soluble receptor that elicits a 50% increase in IL-6 activity in a cell based bioassay.

Molecular Weight: 38 kDa

Purity: ≥ 97% (SDS-PAGE)

ED_{50}: 1-10 ng/mL

Endotoxin: ≤ 0.1 ng/µg IL-6 sR

References

1. Novick, D., et al., J. Exp. Med., 170, 1409 (1989).
2. Honda, M., et al., J. Immunol., 148, 2175 (1992).
3. Yamasaki, et al., Science, 241, 825 (1988).
4. Saito, T., J. Immunol., 147, 168 (1991).

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