DATASHEET
Version 20181206

CD25/IL-2Rα Fc Chimera, Human

Cat. No.: Z03400-50

Size: 50.0 μg

Synonyms: CD25 antigen; CD25; IDDM10; IL-2 R alpha; IL-2Rα

Description:

The IL-2 receptor system consists of three non-covalently linked subunits termed IL-2Rα, IL- 2Rβ, and IL-2Rγ. The IL-2Rα is a type I transmembrane protein consisting of a 219 amino acid (a.a.) extracellular domain, a 19 a.a. transmembrane domain and a 13 a.a. intracellular domain, which is not involved in the transduction of IL-2 signal. Activated T cells, regulatory T cells (Tregs) and NK cells express high levels of CD25 and expression of the high-affinity IL-2Rα is mostly limited to these cell populations. Signaling via IL-2Rα mediates multiple biological processes in various cell populations, e.g. proliferation and differentiation of B cells and NK cells. A soluble form of IL-2Rα (IL-2Rα) appears in serum, concomitant with its increased expression on cells. The function of the soluble IL-2Rα is unclear. Increased levels of IL-2Rα in biological fluids reportedly correlate with increased T and B cell activation and immune system activation. Increased serum concentration of IL-2Rα has been observed in patients with a variety of inflammatory conditions and in the course of some leukemias and lymphomas.
Recombinant Human CD25/IL-2Rα Fc Chimera produced in HEK293 cells is a polypeptide chain containing 427 amino acids with the C-termimal human IgG1 Fc fragment. A fully biologically active molecule, rhCD25/IL-2Rα has a molecular mass of 65 75 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques at GenScript.

Amino Acid Sequence:

Glu^{22}-Cys^{213} (Accession #: P01589), expressed with a C-terminal human IgG1 Fc fragment.

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00001 ELCDDDPPEI PHATFKAMAY KEGTMLNCEC KRGFRRIKSG
00041 SLYMLCTGNS SHSSWDNQCQ CTSSATRNTT KQVTPQPEEQ
00081 KERKTTEMQS PMQPVDQASL PGHCREPPPW ENEATERIYH
00121 FVVGQMVYYQ CVQGYRALHR GPAESVCKMT HGKTRWTQPQ
00161 LICTGEMETS QFPGEEKPQA SPEGRPESET SC
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Source: *HEK293*

Biological Activity: Immobilized Human IL-2 at 5μg/mL (100 μL/well) can bind Human CD25/IL-2Rα, Fc Chimera with a linear range of 1.2-11 ng/mL.

Molecular Weight: 65 75 kDa, observed by reducing SDS-PAGE.

Formulation: Lyophilized from a 0.2 μm filtered solution in PBS.

Reconstitution: Reconstituted in ddH_2O or PBS at 100 μg/ml.

Purity: > 95% as analyzed by reducing SDS-PAGE.

Endotoxin Level: < 0.2 EU/μg, determined by LAL method.

Storage: Lyophilized recombinant CD25/IL-2Rα remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, Human CD25/IL-2Rα should be stable up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

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