Overview

Synonyms	CD25 antigen; CD25; IDDM10; IL-2 R alpha; IL-2R±
Description	The IL-2 receptor system consists of three non-covalently linked subunits termed IL-2R±, IL- 2R^2 , and IL-2R^3 . The IL-2R± 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-2R± is mostly limited to these cell populations. Signaling via IL-2R± mediates multiple biological processes in various cell populations, e.g. proliferation and differentiation of B cells and NK cells. A soluble form of IL-2R± (IL-2R±) appears in serum, concomitant with its increased expression on cells. The function of the soluble IL-2R± is unclear. Increased levels of IL-2R± in biological fluids reportedly correlate with increased T and B cell activation and immune system activation. Increased serum concentration of IL-2R± has been observed in patients with a variety of inflammatory conditions and in the course of some leukemias and lymphomas. Recombinant Human CD25/IL-2R± 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-2R± has a molecular mass of 65~75 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques.
Source	HEK293
Biological Activity	Immobilized Human IL-2 at 5µg/mL (100 µL/well) can bind Human CD25/IL-2R±, Fc Chimera with a linear range of 1.2-11 ng/mL.
Sequence	Glu^{22}-Cys^{213} (Accession #: P01589), expressed with a C-terminal human IgG1 Fc fragment. ELCDDDPPEIPHATFKAMAYKEGTMLNCE CKRGFRRIKSGSLYMLCTGNSSHSSWDNQ CQCTSSATRNTTKQVTPQPEEQKERKTTE MQSPMQPVDQASLPGHCREPPPWENEATE RIYHFVVGQMVYYQCVQGYRALHRGPAES VCKMTHGKTRWTQPQLICTGEMETSQFPG EEKPQASPEGRPESETSC

Properties

Measured Molecular Weight	65~75 kDa, observed by reducing SDS-PAGE.
Purity	> 95% as analyzed 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.
Endotoxin Level	< 0.2 EU/µg, determined by LAL method.
Storage	Lyophilized recombinant CD25/IL-2R± remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, Human CD25/IL-2R± 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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