

DESCRIPTION

Source	Mouse myeloma cell line, NS0-derived		
	Human CD25/IL-2 R α (Glu22-Cys213) Accession # Q5W007	IEGRMD	Human IgG ₁ (Pro100-Lys330)
	N-terminus		C-terminus
N-terminal Sequence Analysis	Glu22		
Structure / Form	Disulfide-linked homodimer		
Predicted Molecular Mass	48.3 kDa (monomer)		

SPECIFICATIONS

SDS-PAGE	65 kDa, reducing conditions
Activity	Measured by its ability to inhibit the IL-2-dependent proliferation of MO7e human megakaryocytic leukemic cells. Avanzi, G. <i>et al.</i> (1988) Br. J. Haematol. 69 :359. The ED ₅₀ for this effect is 0.1-0.5 μ g/mL in the presence of 30 ng/mL of recombinant human IL-2.
Endotoxin Level	<0.01 EU per 1 μ g of the protein by the LAL method.
Purity	>95%, by SDS-PAGE under reducing conditions and visualized by silver stain.
Formulation	Lyophilized from a 0.2 μ m filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 100 μ g/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 3 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Human IL-2 receptor alpha (IL-2 R α), also known as Tac antigen and CD25, was initially identified as a 55 kDa membrane glycoprotein that is capable of binding IL-2. The IL-2 R α cDNA encodes a 272 amino acid residue precursor type I membrane protein with a 21 residue signal peptide, a 219 residue extracellular region, a 19 residue transmembrane region and a 13 residue cytoplasmic domain. IL-2 R α lacks structural features characteristic of members of the cytokine receptor superfamily. By itself, IL-2 R α binds IL-2 with low affinity. However, when IL-2 R α is associated with the IL-2 receptor beta and gamma chains, a high affinity heterotrimeric receptor complex that transduces IL-2 signals is formed.

Soluble forms of many cytokine receptors have been reported, and a soluble form of IL-2 R α (IL-2 sR α) appears in serum, concomitant with its increased expression on cells. The function of the soluble IL-2 R α is unclear. Increased levels of IL-2 sR α in biological fluids reportedly correlate with increased T and B cell activation and immune system activation. Increased serum concentration of IL-2 sR α has been observed in patients with a variety of inflammatory conditions and in the course of some leukemias and lymphomas.