

Tel: 400-968-6088 Fax: 010-56371281

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## Recombinant Human IL-4 RA (C-6His)

Catalog#:P00231 Derived from Human Cells

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DESCRIPTION	Recombinant Human Interleukin-4 Receptor Subunit Alpha is produced by our Mammalian expression system and the target gene encoding Met26-His232 is expressed with a 6His tag at the C-terminus.  Accession#: P24394  Known as:Interleukin-4 receptor subunit alpha; IL-4 receptor subunit alpha; IL-4R subunit alpha; IL-4Ralpha; IL-4RA; CD124; IL-4-binding protein; IL4-BP; IL4R; IL4RA
FORMULATION	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
SHIPPING	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature listed below.
STORAGE	Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
RECONSTITUTION	Always centrifuge tubes before opening. Do not mix by vortex or pipetting.  It is not recommended to reconstitute to a concentration less than 100µg/ml.  Dissolve the lyophilized protein in distilled water.  Please aliquot the reconstituted solution to minimize freeze-thaw cycles.
QUALITY CONTROL	Bioactivity Measured by its ability to inhibit IL-4-dependent proliferation of TF-1 human erythroleukemic cells.  The ED50 for this effect is 5-20 ng/ml.  Mol Mass: 24.4kDa AP Mol Mass: 40-60kDa, reducing conditions.  Purity: Greater than 95% as determined by reducing SDS-PAGE.  Endotoxin: Less than 0.1 ng/µg (1 EU/µg) as determined by LAL test.
BACKGROUND	Interleukin 4 Receptor alpha (IL4-Ra) is a widely expressed 140 kDa transmembrane glycoprotein in the class I cytokine receptor family. Mature human IL4-Ra consists of a 207 amino acid (aa) extracellular domain (ECD) that contains a cytokine binding region and one fibronectin type III domain, a 24 aa transmembrane segment, and a 569 aa cytoplasmic domain that contains one Box 1 motif and one ITIM motif. IL4-Ra plays an important role in Th2-biased immune responses, alternative macrophage activation, mucosal immunity, allergic inflammation, tumor progression, and atherogenesis. Soluble forms of IL4-Ra, generated by alternate splicing or proteolysis, retain ligand binding properties and inhibit IL-4 bioactivity. IL4-Ra is a component of two distinct receptor complexes and shows species selectivity between human and mouse. It can associate with the common gamma chain ( $\gamma$ c) to form the IL-4 responsive type I receptor in which $\gamma$ c increases the affinity for IL-4 and enables signaling. It can alternatively associate with IL13-Ra1 to form the type II receptor which is responsive to both IL-4 and IL-13. The use of shared receptor components contributes to the overlapping biological effects of IL-4 and IL-13 as well as other cytokines that utilize $\gamma$ c.
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