Recombinant Human IL4RA/CD124 Protein (His Tag)

Catalog Number: PKSH032647

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

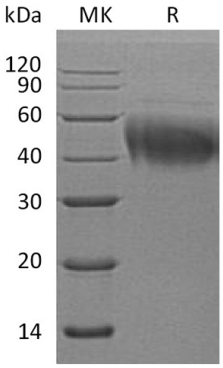
Description

Species	Human
Source	HEK293 Cells-derived Human IL4RA;CD124 protein Met26-His232, with an C-terminal His
Calculated MW	24.4 kDa
Observed MW	35-60 kDa
Accession	P24394
Bio-activity	Measured by its ability to inhibit IL-4-dependent proliferation of TF- 1 human erythroleukemic cells. The ED_{50} for this effect is 5-20 ng/ml.

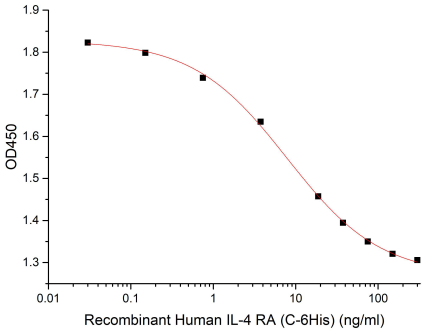
Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 ℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 95 % as determined by reducing SDS-PAGE.



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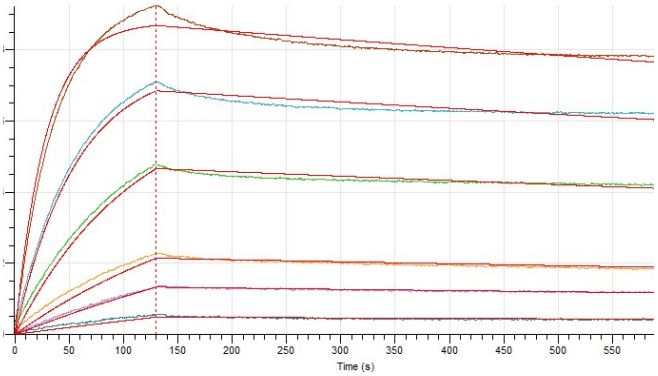

Loaded Dupilumab on Pro-A Biosensor, can bind Recombinant Human IL-4 RA (C-6His) (PKSH032647) with an affinity constant of 1.78 nM as determined in BLI assay.

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 (γc) to form the IL-4 responsive type I receptor in which γc 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 γc.