
Product Name: Human CD123 Protein Dimer, His Tag

Product Code: CSP-26321-01

FOR RESEARCH USE ONLY (RUO)

Protein Name: CD123, Protein Dimer

Alternate Name(s): IL3RA, IL3R, IL3RAY, IL3RX, IL3RY, hIL-3Ra, interleukin 3 receptor subunit alpha

Expression Host
HEK293T

Amino Acid Range
T19 - R305

Protein Construct

CD123 dimer protein contains a CD123 extracellular domain (UniProt# P26951) fused with a proprietary cis-dimer motif followed by a His tag at the C-terminus. Expressed in HEK293T cell line.

SDS-Page Molecular Weight

82 kDa. The migration range of the dimer protein with glycosylation under non-reducing condition is 120-190 kDa on SDS PAGE.

Purity

Greater than 90% dimer form as determined by SDS-PAGE under non-reducing condition

Shipping Conditions

Frozen Ice Packs

Stability & Storage

-20°C

Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH 7.4 with 10% trehalose as protectant

Reconstitution of lyophilized product

For best performance, we strongly recommend you reconstitute the lyophilized product with deionized water to a stock solution of 500 µg/mL.

Solubilize for 20 minutes at room temperature with occasional gentle mixing. Avoid shaking or vortexing.

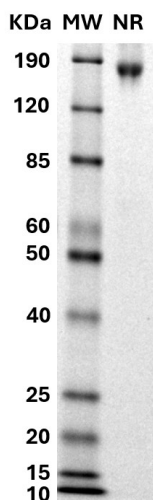
For 25µg product size:

Reconstitute with 50 µL sterile deionized water.

For 100µg product size:

Reconstitute with 200 µL sterile deionized water.

SDS-PAGE



MW: Molecular Weight marker reduced condition

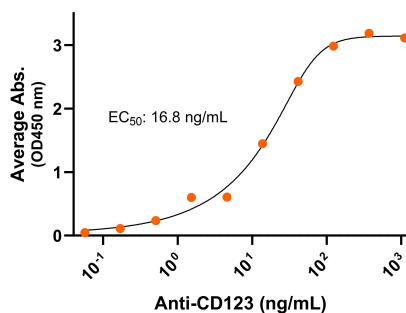
NR: CD123 dimer under non-reducing condition

The migration range of the dimer protein with glycosylation under non-reducing condition is 120-190 kDa on SDS PAGE.

Antibody Binding

Human CD123-His dimer, ELISA

0.2µg of CD123 protein dimer per well



Immobilized human CD123 dimer protein, His tag (Cat. No. CSP-26321-01) at 2 µg/mL (100 µL/well) can bind anti-human CD123 monoclonal antibody with half maximal effective concentration (EC50) range of 8.4-33.6 ng/mL (QC tested).

Background

Human cluster of differentiation 123 (CD123) is in the Type I cytokine receptor family. CD123 is also known as interleukin-3 receptor alpha (IL3RA). CD123 is a type I membrane protein containing an extracellular domain, followed by a transmembrane, and cytoplasmic region. Its extracellular structure contains one immunoglobulin (Ig)-like domain and two fibronectin type III (FnIII) domains. Upon interleukin-3 ligand binding to the extracellular domain, CD123 rapidly heterodimerizes with cluster of differentiation 131 (interleukin-3 receptor beta). CD123 is expressed on pluripotent progenitor cells and promotes proliferation and differentiation of hematopoietic cell lines. CD123 is highly expressed in acute myeloid leukemia subtypes which has made CD123 an emerging strategy in cancer therapy.