

Human CD123(IL-3R α)-muIg Fusion Protein*

CATALOG#: 545-020

QUANTITY: 25 μ g

CONCENTRATION: 0.5 mg/ml

Molecular Structure: A soluble molecule consisting of the extracellular domain of mature human CD123 fused to murine IgG2a Fc.

Mature CD123(EC) (307 aa):

tkednpnppitnlrmkakaqqltwdlrnrvtdiecvkdadysmpavnnscqfgaislcevtntyrvanppfstwilfpensgkpwagaenltcwhidvdfscswavvgpapgadvqydylnvanrrqqyel
hyktdaqqtrigrfddisrlssgsqshilvrgrsaafgipctdkfvfsqieiltppnmtakcnkthsfmhvwkmrshfnrkfryelqiqkrmqpviteqvrdrtsfqlnpgtytvqirarervyflsawstpqrfec
dqeegantrawrtsllialgtllalvcfvic

Linking amino acids (2aa): gt

Murine IgG2aFc (233aa):

eprgptikpcppckcpapnllggpsvffppkikdvlmislspivtcvvdvseddpdvqiswfvnnvevhtaqtqthredynstlrsvsalpiqhqdwmvsgkefkckvnnkdlpapiertiskpkgsvrappqvy
vlpppeemtkkqvltcmvtdfimpediyvewtnngktelnykntepvidsdgsyfmysklrvekknwvwnsycsvvheglhnhhtkksfstrpgk

Predicted nonglycosylated monomeric weight: **61.6 kd.**

Transfectant Cell Line: CHO

INFORMATION: Human CD123 (Interleukin 3 Receptor) is a 70kD type I transmembrane molecule, and is the low affinity receptor for the cytokine IL-3, which can stimulate proliferation or differentiation. When paired in a heterodimer with CD131 (IL-3 R beta), it binds IL-3 with much higher affinity. CD123 is found on Myeloid precursors, Stem cells, a subset of T cells, some B cells Megakaryocytes, basophils, monocytes and epithelial cells. CD123 is present at high levels on many hematologic malignancies and antibodies(2) and CAR T cells(1) against CD123 have been used successfully to combat Acute Myeloid Leukemia.

References: 1) Pizzitola I, Bonnet D, et al. (2014) *Leukemia* **28**(8): 1596-1605. doi: 10.1038/leu.2014.62 2) Jin L, Lock RB, et al. (2009) *Cell Stem Cell* **5**(1): 31-42. doi: 10.1016/j.stem.2009.04.018

STORAGE CONDITIONS: Store at 2 - 5°C. Freeze/Thawing is not recommended.

PRODUCT STABILITY: Product should retain activity for at least 12 months after shipping date when stored as recommended. Ship Date: _____

BUFFER: 50 mM Sodium Phosphate pH 7.5, 100 mM Potassium Chloride, 150mM NaCl, 0.5mg/ml Gentamicin Sulfate (as a preservative).

PRODUCTION: Human CD123-muIg fusion protein was purified from (low FBS containing) tissue culture supernatant of CHO transfectants using Protein A and size exclusion chromatography.

PERFORMANCE: Human CD123-muIg was reactive in EIA utilizing coated recombinant IL-3 capture, detection with GAM/HRP and TMB/H₂O₂ substrate. Binding was easily observed at 200ng/ml.

* *Research Use Only. Not for use in Diagnostic procedures.*

Binding of CD123-muIg to immobilized IL-3 with GAM/HRP detection

