

Recombinant Human Interleukin-3 Receptor alpha/CD123 Fc Chimera Protein, Insect Cells Derived

#R00038

Size: 10 µg/100 µg/500 µg

Stability & Storage

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 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.



Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

Background

Interleukin-3 receptor (IL-3 R) is a heterodimeric structure composed of a 70 kDa IL-3 R alpha subunit (IL-3 R α or CD123) and a 120-140 kDa IL-3 R beta subunit (IL-3 R β or CD131). IL-3R α is a glycoprotein member of the hematopoietic receptor superfamily. IL-3 R α binds IL-3 with relatively low affinity. In the presence of IL-3 R β , however, IL-3 R alpha has a much higher affinity for IL-3. Emerging studies demonstrate that CD123, the IL-3 R α , is highly expressed in leukemic stem cells (LSCs), while not normal hematopoietic stem cells (HSCs), and associates with treatment response, minimal residual disease (MRD) detection and prognosis. Furthermore, CD123 is an important marker for the identification and targeting of LSCs for refractory or relapsed leukemia.

AA Sequence

AGMGTKEDPNPPITNLRMKAKAQQLTWDLNRNVTDI

ECVKDADYSMPAVNNSYCQFGAISLCEVTNYTVRVA
NPPFSTWILFPENSGKPWAGAENLTCWIHDVDFLSC
SWAVGPGAPADVQYDLYLNVANRRQQYECLHYKTD
AQGTRIGCRFDDISRLSSGSQSSHILVRGRSAAFGIP
CTDKFVVSQIEILTPPNMTAKCNKTHSFMHWKMRS
HFNRKFRYELQIQKRMQPVITEQVRDRTSFQLLNPGT
YTVQIRARERVYEFLSAWSTPQRFECDAQEEGANTRA
WRIEGRMDEPKSSDKTHTCPPCPAPEFEGAPSVFLF
PPPKDITLMISRTPEVTCVVVDVSHEDPEVKFNWYV
DGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLN
GKEYCKVSNKALPTPIEKTKISKAKGQPREPQVYTL
PSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPEN
NYKTTTPVLDSDGSFFLYSKLTVDKSRWQQGNVFC
SVMHEALHNHYTQKSLSLSPGK

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0

mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.

Product Specification	
Species	Human
Source	Insect Cells
Tags	Fc
Molecular Weight	Approximately 60.3 kDa on SDS-PAGE under reducing conditions, containing 529 amino acids.
Purity	> 95 % by SDS-PAGE analyses.
Biological Activity	Testing in progress.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in PBS, pH 7.0, with 0.02 % Tween-20.
Endotoxin	Less than 0.01 EU/μg of rHull-3 Rα/CD123-Fc as determined by

Shipping	LAL method.
	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.