

**Recombinant Human Interleukin-3 Receptor  
alpha/CD123 Fc Chimera Protein, Insect Cells  
Derived  
(rHuIL-3R $\alpha$ /CD123-Fc, Insect Cell)  
ChemWhat Technical Data Sheet (TDS)**

<b>Catalog Number:</b>	101-03F
<b>Source:</b>	<i>Insect Cell</i>
<b>Molecular Weight:</b>	Approximately 60.3 kDa on SDS-PAGE under reducing conditions, containing 529 amino acids.
<b>Quantity:</b>	10 $\mu$ g/100 $\mu$ g
<b>AA Sequence:</b>	AGMGTKEDPN PPITNLRMKA KAQQLTWDLN RNVTDIECVK DADYSMPAVN NSYCQFGAIS LCEVTNYTVR VANPPFSTWI LFPENSGKPW AGAENLTCWI HDVDFLSCSW AVGPGAPADV QYDLYLNVAN RRQQYECLHY KTDAQGTRIG CRFDDISRLS SGSQSSHILV RGRSAAFVIP CTDKFFVFSQ IEILTPPNMT AKCNKTHSFM HWKMRSHFNR KFRYELQIQK RMQPVITEQV RDRTSFQLLN PGTYTVQIRA RERVYEFLSA WSTPQRFECQ QEEGANTRAW RIEGRMDEPK SSDKTHTCPP CPAPEFEGAP SVFLFPPKPK DTLMISRTPE VTCVVVDVSH EDPEVKFNWY VDGVEVHNAK TKPREEQYNS TYRVVSVLTV LHQDWLNGKE YKCKVSNKAL PTPIEKTISK AKGQPREPQV YTLPPSRDEL TKNQVSLTCL VKGFYPSDIA VEWESNGQPE NNYKTPPVV DSDGSFFLYS KLTVDKSRWQ QGNVFCSSVM HEALHNHYTQ KSLSLSPGK
<b>Purity:</b>	> 95 % by SDS-PAGE analyses.
<b>Biological Activity:</b>	Testing in progress.
<b>Physical Appearance:</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Formulation:</b>	Lyophilized from a 0.2 $\mu$ m filtered concentrated solution in PBS, pH 7.0, with 0.02 % Tween-20.
<b>Endotoxin:</b>	Less than 0.01 EU/ $\mu$ g of rHuIL-3 R $\alpha$ /CD123-Fc as determined by LAL method.
<b>Reconstitution:</b>	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 $\leq$ -20 $^{\circ}$ C. Further dilutions should be made in appropriate buffered solutions.
<b>Shipping:</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage:</b>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"><li>● 12 months from date of receipt, -20 to -70 <math>^{\circ}</math>C as supplied.</li><li>● 1 month, 2 to 8 <math>^{\circ}</math>C under sterile conditions after reconstitution.</li><li>● 3 months, -20 to -70 <math>^{\circ}</math>C under sterile conditions after reconstitution.</li></ul>
<b>Usage:</b>	ChemWhat Limited in UK offers this branded product for research, development or further evaluation purposes. <b>NOT FOR HUMAN USE.</b>

***Human Interleukin-3 Receptor alpha/CD123***

**ChemWhat** is a heterodimeric structure composed of a 70 kDa IL-3 R alpha subunit (IL-3 R $\alpha$  or CD123) and  
**A brand under Watson** subunit (IL-3 R $\beta$  or CD131). IL-3R $\alpha$  is a glycoprotein member of the hematopoietic receptor  
with relatively low affinity. In the presence of IL-3 R $\beta$ , however, IL-3 R alpha has a much  
higher affinity for IL-3.

Emerging studies demonstrate that CD123, the IL-3 R $\alpha$ , 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.