

**ChemWhat Technical Data Sheet (TDS)**

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<b>Catalog Number:</b>	121-36A
<b>Source:</b>	<i>Escherichia coli</i> .
<b>Molecular Weight:</b>	Approximately 18.0 kDa, a single non-glycosylated polypeptide chain containing 160 amino acids.
<b>Quantity:</b>	2 $\mu$ g/10 $\mu$ g/1000 $\mu$ g
<b>AA Sequence:</b>	MNKEKELRAA SPSLRHVQDL SSRVWILQNN ILTAVPRKEQ TVPVTITLLP CQYLDTLETN RGDPTYMGVQ RPMSCLFCTK DGEQPVQLQEG NIMEMYNK KEPVKASLFY HKKSGTTSTF ESAAPGWFI AVCSKGSCPL ILTQELGEIF ITDFEMIVVH
<b>Purity:</b>	> 95 % by SDS-PAGE and HPLC analyses.
<b>Biological Activity:</b>	Fully biologically active when compared to standard. The specific activity determined by its ability in a functional ELISA. Immobilized rMuIL-36 $\alpha$ at 1 $\mu$ g/mL can bind recombinant murine IL-1 Rrp2 with a range of 0.15-5 $\mu$ g/mL.
<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 7.4, 5 % trehalose.
<b>Endotoxin:</b>	Less than 1 EU/ $\mu$ g of rMuIL-36 $\alpha$ , 160a.a. 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 <b>manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <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>	<b>ChemWhat Limited in UK offers this branded product for research, development or further evaluation purposes. NOT FOR HUMAN USE.</b>

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***Murine Interleukin-36 alpha***

Interleukin-36 (IL-36) is a pro-inflammatory cytokine which plays an important role in the pathophysiology of several diseases. IL-36 $\alpha$ , IL-36 $\beta$ , and IL-36 $\gamma$  (formerly IL-1F6, IL-1F8, and IL-1F9) are IL-1 family members that signal through the IL-1 receptor family members IL-1Rrp2 (IL-1RL2) and IL-1RAcP. IL-36 $\alpha$  is mainly found in skin and lymphoid tissues, but also in fetal brain, trachea, stomach and intestine. It is expressed by monocytes, B and T cells. Notably, IL-36 alpha is the only novel IL-1 family member expressed on T-cells. Recombinant murine interleukin-36 alpha contains 160 amino acids residues which is a single non-glycosylated polypeptide. Specifically, mouse IL-36 $\alpha$  shares 83 % a.a. sequence identity with rat IL-36 $\alpha$ , 54-60 % with human, rabbit, equine and bovine IL-36 $\alpha$ .