

**ChemWhat Technical Data Sheet (TDS)**

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<b>Catalog Number:</b>	101-36E
<b>Source:</b>	<i>Escherichia coli</i> .
<b>Molecular Weight:</b>	Approximately 18.7 kDa, a single non-glycosylated polypeptide chain containing 169 amino acids.
<b>Quantity:</b>	2 $\mu$ g/10 $\mu$ g/1000 $\mu$ g
<b>AA Sequence:</b>	MRGTPGDADG GGRAVYQSMC KPITGTINDL NQQVWTLQGQ NLVAVPRSDS VTPVTVAVIT CKYPEALEQG RGDPIYLG IQ NPEMCLYCEK VGEQPTLQLK EQKIMDLYGQ PEPVKPLFY RAKTGRSTL ESVAFPDWFI ASSKRDQPII LTSELGKSYN TAFELNIND
<b>Purity:</b>	> 95 % by SDS-PAGE and HPLC analyses.
<b>Biological Activity:</b>	Fully biologically active when compared to standard. The specific activity is determined by its binding ability in a functional ELISA. Immobilized rHuIL-36 $\gamma$ at 1 $\mu$ g/mL can bind recombinant human IL-1 Rrp2 Fc Chimera 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.
<b>Endotoxin:</b>	Less than 1 EU/ $\mu$ g of rHuIL-36 $\gamma$ , 169a.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 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>

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***Human Interleukin-36 gamma***

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 $\gamma$  is secreted when transfected into 293-T cells and it could constitute part of an independent signaling system analogous to interleukin-1 alpha (IL-1A), beta (IL-1B) receptor agonist and interleukin-1 receptor type I (IL-1R1). Furthermore, IL-36 $\gamma$  also can function as an agonist of NF-kappa B activation through the orphan IL-1-receptor-related protein 2. Recombinant human IL-36 $\gamma$  is synthesized as a 19 kDa, 169 amino acid (a.a.) protein that contains no signal sequence, no prosegment and no potential N-linked glycosylation site. Human to mouse, IL-36 $\gamma$  shares 53 % a.a. identity. Within the family, IL-36 $\gamma$  shares about 25 % ~ 55 % a.a. sequence identity with IL-1RA, IL-1 $\beta$ , IL-36RA, IL-36 $\alpha$ , IL-37, IL-36 $\beta$  and IL-1F10.