

**ChemWhat Technical Data Sheet (TDS)**

|                                 |   |
|---------------------------------|---|
| <b>Catalog Number:</b>          | 141-33  |
| <b>Source:</b>                  | <i>Escherichia coli</i> .   |
| <b>Molecular Weight:</b>        | Approximately 17.4 kDa, a single non-glycosylated polypeptide chain containing 156 amino acids.   |
| <b>Quantity:</b>                | 2µg/10µg/1000µg   |
| <b>AA Sequence:</b>             | SIQGTSLLTE SCALSTYNDQ SVSFVLENGC YVINVEDCGK NQEKDKVLLR YYESSFPAQS<br>GDGVDGKKLM VNMSPIKDTD IWLNANDKDY SVELQKGDVS PPDQAFFVLH<br>KKSSDFVSFE CKNLPGTYIG VKDNQLALVE ENDESCNNIM FKLSKM   |
| <b>Purity:</b>                  | > 95 % by SDS-PAGE and HPLC analyses.   |
| <b>Biological Activity:</b>     | Fully biologically active when compared to standard. The ED <sub>50</sub> as determined by a cell proliferation assay using murine D10S cells is less than 0.5 ng/ml, corresponding to a specific activity of > 2.0 × 10 <sup>6</sup> IU/mg.  |
| <b>Physical Appearance:</b>     | Sterile Filtered White lyophilized (freeze-dried) powder.   |
| <b>Formulation:</b>             | Lyophilized from a 0.2 µm filtered concentrated solution in 20 mM Tris, 300 mM NaCl, pH 8.5.  |
| <b>Endotoxin:</b>               | Less than 1 EU/µg of rRtIL-33 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 ≤ -20 °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> | <b>Use a 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 °C as supplied.</li><li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li><li>● 3 months, -20 to -70 °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>  |

***Rat Interleukin-33***

Interleukin-33 (IL-33), also known as NF-HEV and DVS 27, is a cytokine belonging to the IL-1 superfamily. It is also a proinflammatory protein that may regulate gene transcription and it induces helper T cells, mast cells, eosinophils and basophils to produce type 2 cytokines. The induction of type 2 cytokines by IL-33 in vivo is believed to induce the severe pathological changes observed in mucosal organs following administration of IL-33. IL-33 is constitutively expressed in smooth muscle and airway epithelia and it binds to a high-affinity receptor family member ST2. In vivo administration of mature IL-33 promotes increased production of IL-5, IL-13, IgE, and IgA, as well as splenomegaly and inflammatory infiltration of mucosal tissues. Recombinant rat IL-33 contains 156 amino acid residues and it shares 59 % a.a. and 90 % sequence identity with human and murine IL-33.