

**PrimeGene Technical Data Sheet**

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<b>Catalog Number:</b>	101-33
<b>Source:</b>	<i>Escherichia coli</i> .
<b>Molecular Weight:</b>	Approximately 17.9 kDa, a single non-glycosylated polypeptide chain containing 159 amino acids.
<b>Quantity:</b>	2µg/10µg/1000µg
<b>AA Sequence:</b>	SITGISPIT EYLASLSTYN DQSITFALED ESYEIVVDL KKDEKKDKVLLSYYESQHPS NE SGDGVLDGK MLMVTLSPK DFWLHANNKE HSVELHKCEKPLPDQAFFVL HNMHSNCVSVF ECKTDPGVFI GVKDNHLALI KVDSSNLCT ENILFKLSET
<b>Purity:</b>	> 97 % 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 0.05 ng/ml, corresponding to a specific activity of > 2.0 × 10 <sup>7</sup> IU/mg.
<b>Physical Appearance:</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Formulation:</b>	Lyophilized from a 0.2µm filtered concentrated solution in 20 mM PB, 150 mM NaCl, 1mM EDTA, pH7.4.
<b>Endotoxin:</b>	Less than 1 EU/µg of rHuIL-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>	This material is offered by Shanghai PrimeGene Bio-Tech for research, laboratory or further evaluation purposes. <b>NOT FOR HUMAN USE.</b>

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***Human Interleukin-33***

IL-33, encoded by IL-33 gene located on the Chr.9 in humans, is a 30 kDa proinflammatory protein belonging to the IL-1 superfamily and it shares less than 20 % a.a. sequence identity with other members. IL-33 secreted by high endothelial venules at high levels, which is found in tonsils, peyer patches and mesenteric lymph nodes, but not in placenta. It is upregulated in arterial smooth muscle, dermal fibroblasts, and keratinocytes following IL1 $\alpha$  or IL1 $\beta$  stimulation. It elicits its biological effects by interacting with IL1RL1/ST2 and its stimulation recruits MYD88, IRAK1, IRAK4, and TRAF6, followed by phosphorylation of MAPK3/ERK1 and/or MAPK1/ERK2, MAPK14, and MAPK8. IL-33 mature protein has 52-58 % a.a. sequence identity with mouse and rat IL-33.