



## Technical Data Sheet

### Recombinant Human Interleukin-33 (rHu IL-33)

#### *Human Interleukin-33*

IL33, also known as NFHEV and DVS 27, is a 30 kDa proinflammatory protein that may also regulate gene transcription. IL33 is constitutively expressed in smooth muscle and airway epithelia. It is upregulated in arterial smooth muscle, dermal fibroblasts, and keratinocytes following IL1 $\alpha$  or IL1 $\beta$  stimulation. IL-33 shares structural and functional characteristics with the IL-1 cytokine family. It binds and signals through the IL-1RL1/ST2 receptor activating NF-kappaB and MAP kinases. IL-33 induces production of TH2 cell related cytokines, including IL-4, IL-5 and IL-13, and exerts multiple inflammation related bioactivities.

Catalog Number:	RC212-44
Source:	<i>Escherichia coli</i> .
Molecular Weight:	Approximately 17.9 kDa, a single non-glycosylated polypeptide chain containing 159 amino acids.
Quantity:	2ug/10ug/1mg
Purity:	>97% by SDS-PAGE and HPLC analyses.
Biological Activity:	Fully biologically active when compared to standard. The ED50 as determined by the dose-dependent stimulation of the proliferation of murine D10S cells is $\leq$ 0.05ng/ml, corresponding to a specific activity of $\geq 2 \times 10^7$ units/mg.
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2 $\mu$ m filtered concentrated solution in 20mM PB, 150mM NaCl, 1mM EDTA, 2mM $\beta$ -Mercaptoethanol, pH7.4.
AA Sequence:	MSITGISPIT EYLASLSTYN DQSITFALED ESYEIVEDL KKDEKKDKVLLSYYESQHPS NE SGDGVGDK MLMVTLSPDK DFWLHANNKE HVELHKCEKPLPDQAFFVL HNMHSNCVSF ECKTDPGVFI GVKDNHLALI KVDSSENLCTENILFKLSET
Endotoxin:	Less than 1EU/ $\mu$ g of rHuIL-33 as determined by LAL method.
Reconstitution:	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 $\leq -20^\circ\text{C}$ . Further dilutions should be made in appropriate buffered solutions.
Storage:	This lyophilized preparation is stable at 2-8 $^\circ\text{C}$ , but should be kept at -20 $^\circ\text{C}$ for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable



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for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.

Usage:

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