

# PRODUCT DATA SHEET



Bioworld Technology, Inc.

## Recombinant IL-33, Human

Catalog Number: BK0104-1mg

Source: Escherichia coli.

Quantity: 1mg

### Description:

Interleukin-33 (IL-33) is a proinflammatory cytokine that belongs to the IL-1 family. IL-33 is expressed in a variety of cells, including epithelial and endothelial cells, smooth muscle cells, macrophages and fibroblasts. The primary receptors for IL-33 are ST2 and IL-1 receptor accessory protein (IL-1RAcP), both of which belong to the IL-1 receptor family. IL-33 is localized to the nucleus of resting cells where it binds to chromatin in the H2A-H2B histone complex as a transcriptional suppressor. IL-33 is secreted by cells during injury which induces a T-helper 2 type inflammatory response. Evidence suggests IL-33 plays a role in autoimmune disease. IL-33's interaction with ST2 can drive allergic pathology and IL-33 has been reported to play a role in the development of rheumatoid arthritis and systemic lupus erythematosus. Recombinant human Interleukin-33 (rhIL-33) produced in E.coli is a single non-glycosylated polypeptide chain containing 159 amino acids. A fully biologically active molecule, rhIL-33 has a molecular mass of 18.0 kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques at GenScript.

### Molecular Weight:

18.0 kDa, observed by reducing SDS-PAGE.

### Purity:

> 95% by SDS-PAGE analysis.

### Biological Activity:

ED50 <0.5ng/mL, measured by a cell proliferation assay using D10S cells, corresponding to a specific activity of  $> 2 \times 10^6$  units/mg.

### Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

### Formulation:

Lyophilized after extensive dialysis against PBS.

### AA Sequence:

SITGISPITEYLA SLSTYNDQSITFALEDESYE-  
IYVEDLKKDEKKDKVLLSYYESQHP-  
SNESGDGV D GKMLMVTL-  
SPTKDFWLHANNKEHSVELHKCEKPLPDQAFFV  
LHNMHNSNCVSFECKTDPGVFIGVKDNHLALIK-  
VDSSENLCTENILFKLSET

### Endotoxin:

< 0.2 EU/ $\mu$ g, determined by LAL method.

### Reconstitution:

Reconstituted in ddH<sub>2</sub>O at 100  $\mu$ g/mL.

### Storage:

Lyophilized recombinant human Interleukin-33 (rhIL-33) remains stable up to 6 months at -80 °C from date of receipt. Upon reconstitution, rhIL-33 remains stable up to 2 weeks at 4 °C or up to 3 months at -20 °C.

### Usage:

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