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Human IL-33 Recombinant Protein

Catalog Number: 14-8338
Also Known As:Interleukin-33, IL33
RUO: For Research Use Only

Product Information

Contents: Human IL-33 Recombinant Protein
REF Catalog Number: 14-8338
Handling Conditions: For best recovery, quick-spin vial prior to opening. Use in a sterile environment
Source: E. coli expressed protein consisting of amino acids Ser 112-Thr 270 of mature human IL-33 (accession # NM-033439).
Molecular Mass: The DTT reduced protein migrates as a 18 kDa polypeptide on SDS-PAGE.
Purity: Greater than 98%, as determined by SDS-PAGE
Endotoxin Level: Less than 0.01 ng/ug cytokine as determined by the LAL assay.
Bioactivity: Measured by D10.G4.1 cell proliferation assay. The ED50 is 0.3 ng/ml, corresponding to a specific activity of 3.0 x 106 Units/mg.

Formulation: Sterile liquid; 10 mM sodium phosphate, pH 7.2, 1% BSA. 0.22 µm filtered.
Temperature Limitation: Store at less than or equal to -70°C.
LOT Batch Code: Refer to Vial
Use By: Refer to Vial

Description

Human IL-33, also called NF-HEV and DVS 27, is a 30 kDa proinflammatory cytokine produced by endothelial and epithelial cells. IL-33 is released during necrotic cell death but was first found in the nucleus of endothelial cells. This dual pattern of expression is reminiscent of "alarmins" also known as endogeneous danger signals. Other known alarmins are IL-1α and HMGB1. IL-33 has been identified as the ligand for ST2 (a member of the Il-1 receptor family). ST2 is stably expressed on mast cells and T(h)2 effector T cells and is functionally associated with T (h)2-mediated inflammation. Although IL-33 was initially reported to be processed by Caspase-1, recent data indicate that Caspase-3 or -7 are capable of processing IL-33 at more physiologic concentrations. IL-33 plays an immune regulatory role by inducing IL-5 and IL-13 *in vitro* and *in vivo* and activating basophils, eosinophils and mast cells. In addition to its role in proimflammation, it may also decrease inflammation through interactions with IL-1 thereby blocking its effect. Human IL-33 shares 55% amino acid sequence identity with mouse.

Applications Reported

Purified Recombinant human IL-33 has been reported for use in cytokine bioassays.

Applications Tested

This recombinant human IL-33 has been tested by bioassays using the cell line D10.G4.1. The ED50 measured in the D10.G4.1 proliferation assay is typically less than 1 ng/ml, corresponding to a specific activity of greater than 1x106 Units/mg.

References

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