Canine IL33 / Interleukin-33 / NF-HEV Protein

Catalog Number: 70005-DNAE

Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

DVS27

Protein Construction:

A DNA sequence encoding the mature form of canine IL33 (O97863) (Ser 110-Ser 263) was expressed, with an initial Met at the N-terminus.

Source: Canine

Expression Host: E. coli

QC Testing

Purity: > 97 % as determined by SDS-PAGE

Bio-Activity

1. Measured by its binding ability in a functional ELISA. Immobilized Canine IL33 (Cat:70005-DNAE) at 10 μg/ml (100 μl/well) can bind human IL1R4-Fc (Cat:10105-H02H), The EC50 of human IL1R4-Fc (Cat:10105-H02H) is 0.25-0.66 μg/ml.
2. Measured in a cell proliferation assay using D10.G4.1 mouse helper T cells costimulated with antiCD3. The ED50 for this effect is typically 10-40 ng/mL.

Endotoxin:

Please contact us for more information.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Met

Molecular Mass:

The recombinant canine IL33 consists of 155 amino acids and has a calculated molecular mass of 17.8 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 19KDa band.

Formulation:

Lyophilized from sterile 5mM EDTA, PBS, pH 7.5

Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

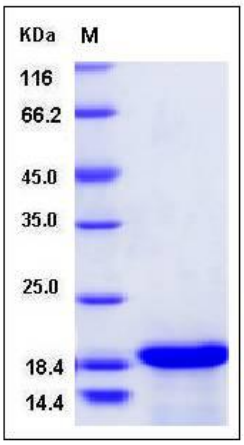
Usage Guide

Storage:

Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

SDS-PAGE:



Reconstitution:

Detailed reconstitution instructions are sent along with the products.

Protein Description

Interleukin-33 (IL-33), also known as DVS 27 and NF-HEV, is a proinflammatory protein and a chromatin-associated cytokine of the IL-1 family with high sequence and structural similarity to IL-1 and IL-18. IL-33 is expressed highly and rather selectively by high endothelial venule endothelial cells (HEVECs) in human tonsils, Peyers's patches, and lymph nodes. It contains a bipartite nuclear localization signal at the C-terminus, and is targeted to the nucleus when ectopically expressed in human umbilical vein endothelial cells (HUVECs) and HeLa cells. IL-33 mediates its biological effects via Toll-interleukin 1 receptor (TIR) domain-containing receptor ST2, activates NF-kappaB and MAP kinases, and drives production of T(H)2-associated cytokines. IL-33 induces the expression of IL-4, IL-5, and IL-13 and leads to severe pathological changes in mucosal organs.

References

1. Schmitz J. et al., 2005, Immunity. 23: 479-90.
2. DinarelloCA. 2005, Immunity. 23: 461-2.
3. CarriereV. et al., 2007, Proc NatlAcadSci. 104 (1): 282-7.
4. CayrolC.et al., 2009, Proc NatlAcadSci. 106 (22): 9021-6.