

Recombinant Human Interleukin-33/IL-33 Protein

Catalog No. PKSH033616

Note: Centrifuge before opening to ensure complete recovery of vial contents.

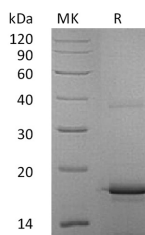
Description

Synonyms	Interleukin-33;IL-33;Interleukin-1 Family Member 11;IL-1F11;Nuclear Factor From High Endothelial Venules;NF-HEV;IL33;C9orf26;IL1F11;NFHEV
Species	Human
Expression Host	E.coli
Sequence	Ser112-Thr270
Accession	O95760
Calculated Molecular Weight	18.1 kDa
Observed molecular weight	18 kDa
Tag	None
Bioactivity	Not validated for activity

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 0.01 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 µm filtered solution of 20mM PB, 150mM NaCl, pH 7.4. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



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Background

Interleukin-33 (IL-33) was initially discovered as a nuclear factor NF-HEV abundantly expressed in high endothelial

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venules. It is a 30-32 kD pro-inflammatory protein with intracellular and extracellular activities 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 highly and selectively expressed 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. The C-terminal fragment; corresponding to mature IL-33; binds and triggers signaling. IL-33 mediates its biological effects via Toll-interleukin 1 (IL-1) receptor (TIR) domain-containing receptor ST2; activates NF-kappaB and MAP kinases; and drives production of T(H)2-associated cytokines from in vitro polarized T(H)2 cells. In vivo; IL-33 induces the expression of IL-4; IL-5; and IL-13 and leads to severe pathological changes in mucosal organs. Human IL-33 is 270 amino acids in length.

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