IL-33 Monoclonal Antibody

catalog number: AN200101P

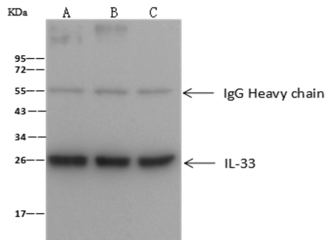
Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

Description

Reactivity	Human
Immunogen	Recombinant Human IL-33 Protein
Host	Mouse
Isotype	IgG2a
Clone	4D9
Purification	Protein A
Buffer	0.2 μm filtered solution in PBS

Applications	Recommended Dilution
WB	1:500-1:2000
IP	0.5-2 μL/mg of lysate

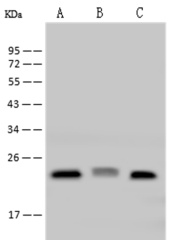
Data



Immunoprecipitation analysis using 2 μL anti-IL-33 mouse Monoclonal Antibody and 60 μg of Immunomagnetic beads Protein A/G. Western blot was performed from the immunoprecipitate using IL-33 mouse Monoclonal Antibody at a dilution of 1:100. Lane A:0.5 mg HeLa，K562，jurkat Whole Cell Lysate

Observed-MW:25 kDa

Calculated-MW:31 kDa



Western Blot with IL-33 Monoclonal Antibody at dilution of 1:500. Lane A: Hela Whole Cell Lysate, Lane B: K562 Whole Cell Lysate, Lane C: Jurkat Whole Cell Lysate, Lysates/proteins at 30 μg per lane.

Observed-MW:25 kDa

Calculated-MW:31 kDa

Preparation & Storage

Storage	This antibody can be stored at 2℃-8℃ for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20℃ to -80℃. Preservative-Free. Avoid repeated freeze-thaw cycles.
Shipping	Ice bag

Background

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IL-33, also known as NF-HEV and DVS 27, is a 30 kDa proinflammatory protein that may also regulate gene transcription. DVS 27 was identifed as a gene that is upregulated in vasospastic cerebral arteries. NF-HEV was described as a nuclear factor that is preferentially expressed in the endothelial cells of high endothelial venules relative to endothelial cells from other tissues. IL-33 was identified based on sequence and structural homology with IL-1 family cytokines. DVS 27, NF-HEV, and IL-33 share 100% amino acid sequence identity. IL-33 is constitutively expressed in smooth muscle and airway epithelia. It is upregulated in arterial smooth muscle, dermal fibroblasts, and keratinocytes following IL-1 alpha or IL-1 beta stimulation. Similar to IL-1, IL-33 can be cleaved in vitro by caspase-1, generating an N-terminal fragment that is slightly shorter than the C-terminal fragment. The N-terminal portion of full length IL-33 contains a predicted bipartite nuclear localization sequence and a homeodomain-like helix-turn-helix DNA binding domain. By immunofluorescence, full length IL-33 localizes to the nucleus in HUVECs and transfectants. The C-terminal fragment, corresponding to mature IL-33, binds and triggers signaling through mast cell IL-1 R4/ST2L, a longtime orphan receptor involved in the augmentation of Th2 cell responses. A ternary signaling complex is formed by the subsequent association of IL-33 and ST2L with IL-1R AcP. Stimulation of Th2 polarized lymphocytes with mature IL-33 in vitro induces IL-5 and IL-13 secretion. In vivo administration of mature IL-33 promotes increased production of IL-5, IL-13, IgE, and IgA, as well as splenomegaly and inflammatory infiltration of mucosal tissues. Full length and mature human IL-33 share 52 - 58% aa sequence identity with mouse and rat IL-33. Human IL-33 shares less than 20% aa sequence identity with other IL-1 family proteins.

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