

Anti-IL-18 Antibody [PS01-06]

HA721537



Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	WB, FC
Molecular Wt:	Predicted band size: 22 kDa
Clone number:	PS01-06

Description: Interleukin-18 (IL-18), also known as interferon-gamma inducing factor is a protein which in humans is encoded by the IL18 gene. The protein encoded by this gene is a proinflammatory cytokine. Many cell types, both hematopoietic cells and non-hematopoietic cells, have the potential to produce IL-18. It was first described in 1989 as a factor that induced interferon- γ (IFN- γ) production in mouse spleen cells. Originally, IL-18 production was recognized in Kupffer cells, liver-resident macrophages. However, IL-18 is constitutively expressed in non-hematopoietic cells, such as intestinal epithelial cells, keratinocytes, and endothelial cells. IL-18 can modulate both innate and adaptive immunity and its dysregulation can cause autoimmune or inflammatory diseases. IL-18 belongs to the IL-1 superfamily and is produced mainly by macrophages but also other cell types, stimulates various cell types and has pleiotropic functions. IL-18 is a proinflammatory cytokine that facilitates type 1 responses. Together with IL-12, it induces cell-mediated immunity following infection with microbial products like lipopolysaccharide (LPS). IL-18 in combination with IL12 acts on CD4, CD8 T cells and NK cells to induce IFN γ production, type II interferon that plays an important role in activating the macrophages or other cells. The combination of this IL-18 and IL-12 has been shown to inhibit IL-4 dependent IgE and IgG1 production and enhance IgG2a production in B cells. Importantly, without IL-12 or IL-15, IL-18 does not induce IFN γ production, but plays an important role in the differentiation of naive T cells into Th2 cells and stimulates mast cells and basophils to produce IL-4, IL-13, and chemical mediators such as histamine.

Immunogen:	Recombinant protein within full length protein.
Positive control:	A431 cell lysate, SiHa cell lysate, A431.
Subcellular location:	Cytoplasm, Secreted.
Database links:	SwissProt: Q14116 Human
Recommended Dilutions:	
WB	1:1,000
FC	1:500-1:1,000
Storage Buffer:	PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.
Storage Instruction:	Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.
Purity:	Protein A affinity purified.

Hangzhou Huan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

Service mail:support@huabio.cn

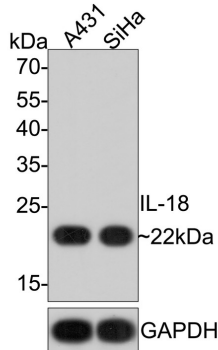
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Images

Fig1: Western blot analysis of IL-18 on different lysates with Rabbit anti-IL-18 antibody (HA721537) at 1/1,000 dilution.

Lane 1: A431 cell lysate

Lane 2: SiHa cell lysate



Lysates/proteins at 10 µg/Lane.

Predicted band size: 22 kDa

Observed band size: 22 kDa

Exposure time: 2 minutes;

12% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDN/TBST for 1 hour at room temperature. The primary antibody (HA721537) at 1/1,000 dilution was used in 5% NFDN/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:100,000 dilution was used for 1 hour at room temperature.

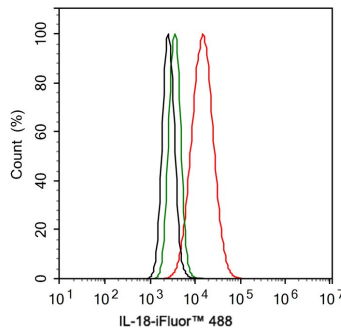


Fig2: Flow cytometric analysis of A431 cells labeling IL-18.

Cells were fixed and permeabilized. Then stained with the primary antibody (HA721537, 1µg/ml) (red) compared with Rabbit IgG Isotype Control (green). After incubation of the primary antibody at +4°C for an hour, the cells were stained with a iFluor™ 488 conjugate-Goat anti-Rabbit IgG Secondary antibody (HA1121) at 1/1,000 dilution for 30 minutes at +4°C. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Zhang X et al. IL18 signaling causes islet β cell development and insulin secretion via different receptors on acinar and β cells. Dev Cell. 2022 Jun
2. Lin T et al. NET-Triggered NLRP3 Activation and IL18 Release Drive Oxaliplatin-Induced Peripheral Neuropathy. Cancer Immunol Res. 2022 Dec

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