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Anti-IL-18 Antibody
Catalog # ABO11731

Specification

Anti-IL-18 Antibody - Product Information

Application	**IHC, WB**
Primary Accession	Q14116
Host	**Rabbit**
Reactivity	**Human**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Interleukin-18(IL18) detection. Tested with WB, IHC-P, ICC in Human.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-IL-18 Antibody - Additional Information

Gene ID 3606

Other Names
Interleukin-18, IL-18, Iboctadekin, Interferon gamma-inducing factor, IFN-gamma-inducing factor, Interleukin-1 gamma, IL-1 gamma, IL18, IGIF, IL1F4

Calculated MW
22326 MW KDa

Application Details
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat

Immunohistochemistry(Frozen Section), 0.5-1 µg/ml, Human, -
Western blot, 0.1-0.5 µg/ml, Human

Subcellular Localization
Secreted.

Protein Name
Interleukin-18

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
E.coli-derived human IL-18 recombinant protein (Position: Y37-D193). Human IL-18 shares 66% and 64% amino acid (aa) sequences identity with mouse and rat IL-18, respectively.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins

Storage

At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Sequence Similarities
Belongs to the IL-1 family.

Anti-IL-18 Antibody - Protein Information

Name IL18 (HGNC:5986)

Synonyms IGIF, IL1F4

Function
Pro-inflammatory cytokine primarily involved in epithelial barrier repair, polarized T-helper 1 (Th1) cell and natural killer (NK) cell immune responses (PubMed:10653850). Upon binding to IL18R1 and IL18RAP, forms a signaling ternary complex which activates NF-kappa-B, triggering synthesis of inflammatory mediators (PubMed:14528293, PubMed:25500532, PubMed:37993714). Synergizes with IL12/interleukin-12 to induce IFNG synthesis from T-helper 1 (Th1) cells and natural killer (NK) cells (PubMed:10653850). Involved in transduction of inflammation downstream of pyroptosis: its mature form is specifically released in the extracellular milieu by passing through the gasdermin-D (GSDMD) pore (PubMed:33883744).

Cellular Location
Cytoplasm, cytosol. Secreted. Note=The precursor is cytosolic (PubMed:33883744). In response to inflammasome-activating signals, cleaved and secreted (PubMed:33883744, PubMed:37993712, PubMed:37993714). Mature form is secreted and released in the extracellular milieu by passing through the gasdermin-D (GSDMD) pore (PubMed:33883744, PubMed:37993714). In contrast, the precursor form is not released, due to the presence of an acidic region that is proteolytically removed by CASP1, CASP4 or CASP5 during maturation (PubMed:33883744, PubMed:37993714). The secretion is dependent on protein unfolding and facilitated by the cargo receptor TMED10 (PubMed:32272059).

Tissue Location
[Isoform 2]: Expressed in ovarian carcinoma but undetectable in normal ovarian epithelial cells. Resistant to proteolytic activation by caspase-1 and -4

Anti-IL-18 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides

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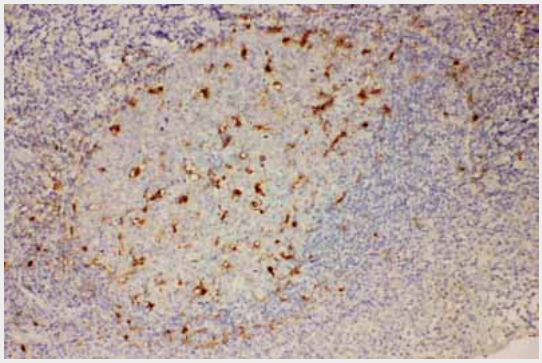
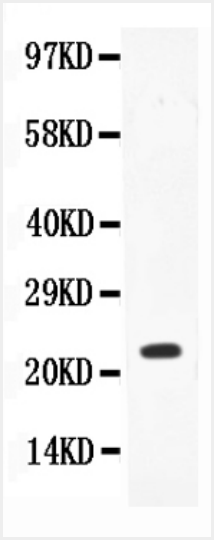
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-IL-18 Antibody - Images



Anti-IL-18 Picoband antibody, ABO11731-1.JPGIHC(P): Human Tonsil Tissue



Anti-IL-18 Picoband antibody, ABO11731-2.jpgAll lanes: Anti-IL18 (ABO11731) at 0.5ug/mlWB: HELA Whole Cell Lysate at 40ugPredicted bind size: 22KDObserved bind size: 22KD

Anti-IL-18 Antibody - Background

Interleukin-18, also known as IL18, is a protein which in humans is encoded by the IL18 gene. IL-18 is a cytokine produced by macrophages and other cells that belongs to the IL-1 superfamily. It is mapped to 11q22.2-q22.3. IL-18 works by binding to the interleukin-18 receptor, and together with IL-12, it induces cell-mediated immunity following infection with microbial products like lipopolysaccharide (LPS). After stimulation with IL-18, natural killer (NK) cells and certain T cells release another important cytokine called interferon-Î³ (IFN-Î³) or type II interferon that plays an important role in activating the macrophages or other cells. The combination of this cytokine and IL12 has been shown to inhibit IL4 dependent IgE and IgG1 production, and enhance IgG2a production in B cells. IL-18 binding protein (IL18BP) can specifically interact with this cytokine, and thus negatively regulate its biological activity.