

Goat Anti-IL18 Antibody

Peptide-affinity purified goat antibody Catalog # AF1563a

Specification

Goat Anti-IL18 Antibody - Product Information

Application Primary Accession Other Accession Reactivity Host Clonality Concentration Isotype Calculated MW

WB, IF, FC, Pep-ELISA <u>O14116</u> <u>NP_001553</u>, <u>3606</u>, <u>29197 (rat)</u> Human Goat Polyclonal 100ug/200ul IgG 22326

Goat Anti-IL18 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

Dilution WB~~1:1000 IF~~1:50~200 FC~~1:10~50 Pep-ELISA~~N/A

Format 0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Goat Anti-IL18 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-IL18 Antibody - Protein Information

Name IL18 (<u>HGNC:5986</u>)

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:<a href="http://www.uniprot.org/citations/10653850"

target="_blank">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

Goat Anti-IL18 Antibody - Protocols

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

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

Goat Anti-IL18 Antibody - Images



| 250kDa 150kDa 100kDa 75kDa |
|-------------------------------------|
| 50kDa |
| 37kDa |
| 25kDa |
| 20kDa |
| 15kDa |

AF1563a (0.1 μ g/ml) staining of HeLa lysate (35 μ g protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

Goat Anti-IL18 Antibody - Background

The protein encoded by this gene is a proinflammatory cytokine. This cytokine can induce the IFN-gamma production of T cells. The combination of this cytokine and IL12 has been shown to inhibit IL4 dependent IgE and IgG1 production, and enhance IgG2a production of B cells. IL-18 binding protein (IL18BP) can specifically interact with this cytokine, and thus negatively regulate its biological activity.

Goat Anti-IL18 Antibody - References

Inflammatory Mediators Gene Polymorphisms in Preeclampsia. Franchim CS, et al. Hypertens Pregnancy, 2010 Sep 6. PMID 20818961.

Functional association of interleukin-18 gene -607 C/A promoter polymorphisms with endometriosis. Ayaz L, et al. Fertil Steril, 2010 Aug 25. PMID 20797704.

IL-18 gene polymorphism, cardiovascular mortality and coronary artery disease. Hernesniemi JA, et al. Eur J Clin Invest, 2010 Aug 2. PMID 20735470.

A genetic association study of maternal and fetal candidate genes that predispose to preterm prelabor rupture of membranes (PROM). Romero R, et al. Am J Obstet Gynecol, 2010 Jul 29. PMID 20673868.

Variation at the NFATC2 Locus Increases the Risk of Thiazolinedinedione-Induced Edema in the Diabetes REduction Assessment with ramipril and rosiglitazone Medication (DREAM) Study. Bailey SD, et al. Diabetes Care, 2010 Jul 13. PMID 20628086.