

## Purified anti-IL-18 Antibody

|                          |   |
|--------------------------|---|
| <b>Catalog# / Size</b>   | 934801 / 25 µg<br>934802 / 100 µg   |
| <b>Clone</b>             | W18160A   |
| <b>Regulatory Status</b> | RUO   |
| <b>Other Names</b>       | IL18, IL-18, Interleukin 18, Interleukin-18, IL-1 Gamma, Interleukin-1 Gamma, IFN-Gamma-Inducing Factor   |
| <b>Isotype</b>           | Rat IgG2a, λ  |
| <b>Description</b>       | Interleukin 18 (IL-18) is a proinflammatory cytokine that participates in both innate and acquired immunity. IL-18 is a part of the IL-1 superfamily that activates T-helper 1 (Th1) and natural killer (NK) cells by inducing IFN-γ production. IL-18 is produced in its inactive precursor form, pro-IL-18 (24 kD), with no signal peptide, accumulating in the cytoplasm. Pro-IL-18 is then processed intracellularly by CASP1 into the mature active form of IL-18 (18 kD) which is secreted extracellularly. Mature IL-18 binds to an inducible receptor, IL-18Rα, and then recruits IL-18Rβ which initiates an immune reaction through TLR/IL-1R-like signaling by recruiting MyD88 and the NF-κB pathway. IL-18 is associated with Adult-onset Still's disease and pleural tuberculosis. |

### Product Details

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|-------------------------------|--|
| <b>Verified Reactivity</b>    | Human  |
| <b>Antibody Type</b>          | Monoclonal   |
| <b>Host Species</b>           | Rat  |
| <b>Immunogen</b>              | Partial recombinant human IL-18 protein of approximately 60 amino acids  |
| <b>Formulation</b>            | Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide   |
| <b>Preparation</b>            | The antibody was purified by affinity chromatography.  |
| <b>Concentration</b>          | 0.5 mg/mL  |
| <b>Storage &amp; Handling</b> | The antibody solution should be stored undiluted between 2°C and 8°C.  |
| <b>Application</b>            | <a href="#">WB - Quality tested</a><br><a href="#">ICC - Verified</a>  |
| <b>Recommended Usage</b>      | Each lot of this antibody is quality control tested by <a href="#">Western blotting</a> . For Western blotting, the suggested use of this reagent is 0.125 - 1.0 µg/mL. For immunocytochemistry, a concentration range of 1.0 - 5.0 µg/mL is recommended. It is recommended that the reagent be titrated for optimal performance for each application. |
| <b>Application Notes</b>      | Clone recognizes human IL-18.<br><br>For ICC testing, HeLa cells were fixed in 4% PFA and permeabilized with either Triton X-100 or methanol; both methods produced strong staining at 1 mg/mL.  |
| <b>RRID</b>                   | AB_2820219 (BioLegend Cat. No. 934801)<br>AB_2820220 (BioLegend Cat. No. 934802)   |

### Antigen Details

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|---------------------|---|
| <b>Structure</b>    | IL-18 is a 193 amino acid protein with a predicted molecular weight of 22 kD. |
| <b>Distribution</b> | IL-18 is secreted, also localized to the nucleus and cytosol.                 |
| <b>Function</b>     | Proinflammatory cytokine  |

|                           |   |
|---------------------------|---|
| <b>Ligand/Receptor</b>    | Binds inducible receptor IL-18R $\alpha$ , and then recruits IL-18R $\beta$ |
| <b>Cell Type</b>          | NK cells, T cells   |
| <b>Biology Area</b>       | Adaptive Immunity, Immunology, Innate Immunity                              |
| <b>Molecular Family</b>   | Cytokines/Chemokines  |
| <b>Antigen References</b> |   |

1. Adachi O, *et al.* 1998. *Cell Press.* 9:1:143.
2. Akira S, *et al.* 2000. *Curr. Op. Imm.* 12:1:59.
3. Van de Veerdonk, *et al.* 2011. *Trends in Imm.* 32:3:110.
4. Canna S, *et al.* 2017. *Jour. of All. and Clin. Imm.* 139:5:1698.
5. Muhl H, *et al.* 2019. *Cell Sig.* 63:109388.

**Gene ID** [3606](#)

## Related Protocols

[Immunocytochemistry Staining Protocol](#)

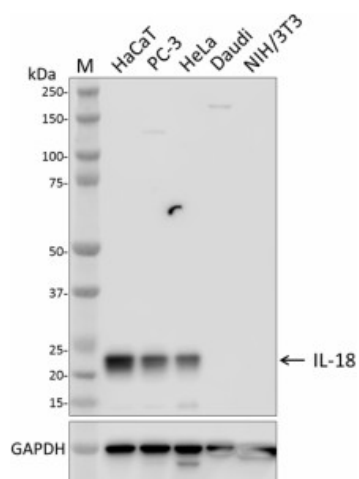
[Western Blotting Protocol](#)

[Immunoprecipitation Protocol](#)

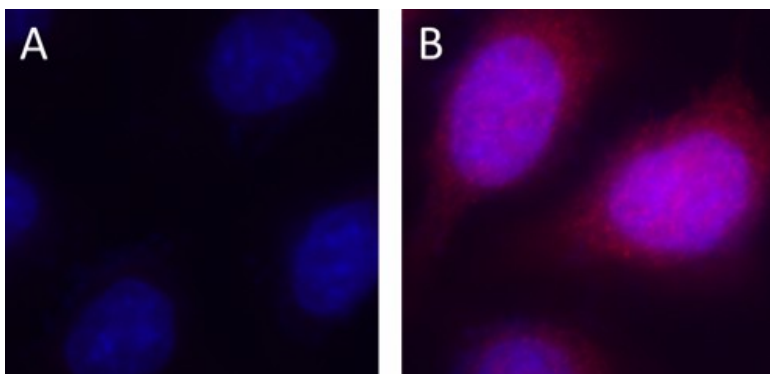
## Other Formats

Purified anti-IL-18

## Product Data



Whole cell extracts (15  $\mu$ g total protein) from the indicated cell lines were resolved by 4-12% Bis-Tris gel electrophoresis, transferred to a PVDF membrane, and probed with 0.1  $\mu$ g/mL of purified anti-IL-18 antibody (clone W18160A) overnight at 4°C. Proteins were visualized by chemiluminescence detection using HRP Goat anti-rat IgG Antibody (Cat. No. 405405) at a 1:3000 dilution. Direct-Blot™ HRP anti-GAPDH Antibody (Cat. No. 607904) was used as a loading control at a 1:50000 dilution (lower). Lane M: Molecular weight marker.



HeLa cells were fixed with 4% paraformaldehyde for 10 minutes, permeabilized with methanol for 10 minutes at -20°C, and blocked with 5% FBS for 60 minutes. Cells were then intracellularly stained with 1  $\mu$ g/mL of either Purified Rat IgG2a,  $\kappa$  Isotype Ctrl Antibody (Cat. No. 400502, panel A) or purified anti-IL-18 antibody (clone W18160A) (panel B) overnight at 4°C, followed by incubation with Alexa Fluor® 594 Goat anti-rat IgG Antibody (Cat. No. 405422) at 2.0  $\mu$ g/mL. Nuclei were counterstained with DAPI and the image was captured with a 60X objective.

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