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# Product datasheet for AM26651AF-N

## Il18 (37-194) Mouse Monoclonal Antibody [Clone ID: 21A12]

### Product data:

| | |
|---|---|
| **Product Type:** | Primary Antibodies |
| **Clone Name:** | 21A12 |
| **Applications:** | WB |
| **Recommended Dilution:** | Western blot: 1 µg/ml for chemiluminescence detection system.<br>For details see protocol below. |
| **Reactivity:** | Mouse, Rat |
| **Host:** | Mouse |
| **Isotype:** | IgG2b |
| **Clonality:** | Monoclonal |
| **Immunogen:** | Mature rat IL-18 fusion protein corresponding to 37-194 aa |
| **Specificity:** | This antibody reacts with IL-18. |
| **Formulation:** | PBS containing 50% glycerol, pH 7.2. No preservative is contained.<br><br>State: Azide Free<br>State: Liquid Ig fraction |
| **Concentration:** | lot specific |
| **Purification:** | Protein A agarose |
| **Conjugation:** | Unconjugated |
| **Storage:** | Upon receipt, store (in aliqouts) at -20 °C. Avoid repeated freezing and thawing. |
| **Stability:** | Shelf life: One year from despatch. |
| **Gene Name:** | interleukin 18 |
| **Database Link:** | Entrez Gene 29197 Rat<br>P97636 |

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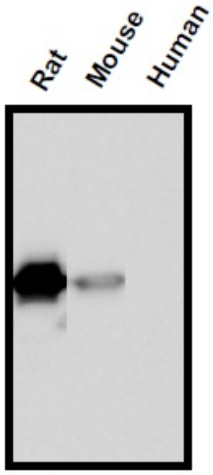
**Background:** Interleukin 18 (IL-18) is an 18-kDa cytokine which identified as a costimulatory factor for production of interferon-γ (IFN-γ) in response to toxic shock and shares functional similarities with IL-12. IL-18 is synthesized as a precursor 24-kDa molecule without a signal peptide and must be cleaved to produce an active molecule. IL-1 converting enzyme (ICE, Caspase-1) cleaves pro-IL-18 at aspartic acid in the P1 position, producing the mature, bioactive peptide that is readily released from the cells. It is reported that IL-18 is produced from Kupffer cells, activated macrophages, keratinocytes, intestinal epithelial cells, osteoblasts, adrenal cortex cells and murine diencephalon. IFN-γ is produced by activated T or NK cells and plays critical roles in the defense against microbiral pathogens. IFN-γ activates macrophages and enhances NK activity and B cell maturation, proliferation and Ig secretion. IFN-γ also induces expression of MHC class I and II antigens and inhibits osteoclast activation. IL-18 acts on T helper type-1 (Th1) T cells and in combination with IL-12 strongly induces them to produce IFN-γ. Pleiotropic effects of IL-18 have also been reported, such as, enhancement production of IFN-γ and GM-CSF in peripheral blood mononuclear cells, production of Th1 cytokines, IL-2, GM-CSF and IFN-γ in T cells, enhancement of Fas ligand expression by Th1 cells.

**Synonyms:** IL-18, IGIF, IL1F4, Iboctadekin, IL1 gamma, IL-1 gamma

**Note:** This product was originally produced by MBL International.

Protocol:
SDS-PAGE & Western Blotting
1) Mix the sample with equal volume of Laemmli's sample buffer. Boil the samples for 3 minutes and centrifuge.
2) Load the sample per lane in a 1 mm thick SDS-polyacrylamide gel for electrophoresis.
3) Blot the protein to a polyvinylidene difluoride (PVDF) membrane at 1 mA/cm2 for 1 hour in a semi-dry transfer system (Transfer Buffer: 25 mM Tris, 190 mM glycine, 20% MeOH). See the manufacture's manual for precise transfer procedure.
4) To reduce nonspecific binding, soak the membrane in 5% skimmed milk (in PBS, pH 7.2) for 1 hour at room temperature, or overnight at 4oC.
5) Incubate the membrane with primary antibody diluted with PBS, pH 7.2 containing 1% skimmed milk as suggest in the APPLICATIONS for 1 hour at room temperature. (The concentration of antibody will depend on condition.)
6) Wash the membrane with PBS-T [0.05% Tween-20 in PBS] (5 minutes x 6 times).
7) Incubate the membrane with the 1:10,000 HRP-conjugated anti-mouse IgG diluted with 1% skimmed milk (in PBS, pH 7.2) for 1 hour at room temperature.
8) Wash the membrane with PBS-T (5 minutes x 6 times).
9) Wipe excess buffer on the membrane, then incubate it with appropriate chemiluminescence reagent for 1 minute.
10) Remove extra reagent from the membrane by dabbing with paper towel, and seal it in plastic wrap.
11) Expose to an X-ray film in a dark room for 1 minute.
12) Develop the film as usual. The condition for exposure and development may vary.
(Positive control for Western blotting; transfectant)

## Product images:




Western blot analysis of mature rat IL-18 expression in culture supernatant of rat, mouse and human IL-18 transfected 293T cells using AM26651AF-N.