

MONOCLONAL ANTIBODY

Anti-IL-18 (Mouse) mAb-Biotin

Code No.	Clone	Subclass	Quantity	Form
D048-6	93-10C	Rat IgG1	50 µL	Purified IgG

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 microbial pathogens. IFN- γ activates macrophages, enhances NK activity and B cell maturation, proliferation and Ig secretion, induces 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 has 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.

SOURCE: This antibody was purified from hybridoma (clone 93-10C) supernatant using protein G agarose. This hybridoma was established by fusion of mouse myeloma cell SP2/0 with SD rat splenocyte immunized with recombinant mouse IL-18.

FORMULATION: In 50 µL volume of PBS containing 1% BSA, 10% glycerol and 0.09% sodium azide, pH 7.2.
*Azide may react with copper or lead in plumbing system to form explosive metal azides. Therefore, always flush plenty of water when disposing materials containing azide into drain.

STORAGE: This antibody solution is stable for one year from the date of purchase when stored at 4°C.

REACTIVITY: This antibody reacts with mouse IL-18 on ELISA.

SPECIES CROSS REACTIVITY:

Species	Human	Mouse	Rat
Sample	Not tested	Recombinant	Not tested
Reactivity on ELISA		+	

APPLICATIONS:

Western blotting; Not tested
Immunoprecipitation; Not tested
Immunohistochemistry; Not tested
Immunocytochemistry; Not tested
Flow cytometry; Not tested
ELISA; dilute 1:2,000.
Suggested paired clone for ELISA is clone 74 (MBL, code no. D047-3).

INTENDED USE:

For Research Use Only. Not for use in diagnostic procedures.

REFERENCES:

- 1) Dao, T., *et al.*, *Cell Immunol.* **173**, 230-235 (1996)
- 2) Micallef, M., *et al.*, *Eur. J. Immunol.* **26**, 1647-1651 (1996)
- 3) Ushio, S., *et al.*, *J. Immunol.* **156**, 4274-4279 (1996)
- 4) Okamura, H., *et al.*, *Nature* **378**, 88-91 (1995)

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