

MONOCLONAL ANTIBODY

Biotin Labeled Anti-Human IL-18

Code No.	Clone	Subclass	Quantity	Form
D045-6	159-12B	Rat IgG2a	50 ml/vial	Solution in 1% BSA/PBS

BACKGROUND: Interleukin 18 (IL-18) is a 18 kDa novel 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 microviral 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 1-type 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 T helper type 1 cytokines, IL-2, GM-CSF and IFN- γ in T cells, enhancement of Fas ligand expression by T helper type 1 (Th1) cells.

SOURCE: This antibody was purified from mouse ascites fluid using protein-G Sepharose. This hybridoma was established by fusion of mouse myeloma cell SP2/o with SD rat splenocyte immunized with recombinant Human IL-18.

PRODUCT: 50 micrograms of IgG in 50 microliter volume of PBS containing 1% BSA and 0.1% NaN₃*. *Azide may react with copper or lead in plumbing systems to form explosive metal azides. Always flush drains with plenty of water when disposing of materials containing azide.

STORAGE: This antibody is stable for 3 years from the date of manufacture when stored at 4 °C.

REACTIVITY: This antibody reacts with human IL-18 by ELISA.

APPLICATIONS: ELISA; dilute 1:1000.

*Suggested paired clone for ELISA is 125-2H. (Code No. D044-3).

SPECIES CROSS REACTIVITY:

Species	Human	Mouse	Others
Reactivity	+	-	NT

NT; not tested

INTENDED USE: For research use only, not for clinical diagnosis.

REFERENCES:

- 1) Okamura H. et al., *Nature* **378**, 88-91 (1995)
- 2) Ushio S. et al., *J. Immunol.* **156**, 4274-4279 (1996)
- 3) Micallef M. et al., *Eur. J. Immunol.* **26**, 1647-1651 (1996)
- 4) Tao D. et al., *Cell Immunol.* **173**, 230-235 (1998)

RELATED PRODUCTS:

Code No. 7620 Human IL-18 ELISA Kit

Code No. D044-3 Anti-Human IL-18 monoclonal antibody

D045-6
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