

## IL-18BP (N-18): sc-9460

### BACKGROUND

IL-18 (also referred to as IL-1 $\gamma$ ) has been shown to augment the secretion of IFN- $\gamma$  from T lymphocytes and to increase NK cell activity in spleen cells. IL-18 exhibits 19% and 12% identity with IL-1 $\alpha$  and IL-1 $\beta$ , respectively, over the 12  $\beta$ -strands of the  $\beta$ -trefoil fold domain, which is a signature feature of the IL-1 family. The unusual leader sequence of IL-18 may be analogous to the IL-1 $\beta$  pro-domain, which must be cleaved by the serine protease ICE for optimal secretion and biological activity. IL-18, which was originally described as IGIF (IFN- $\gamma$ -inducing factor), IL-18 is induced in mouse liver subsequent to challenge with lipopolysaccharide (LPS). IL-18 binding protein (IL-18BP) functions as an inhibitor of the early Th1 response by binding to IL-18 and inhibiting IFN- $\gamma$  production. IL-18BP is a member of the immunoglobulin superfamily and shares some homology to IL-1RII.

### REFERENCES

1. Nakamura, K., Okamura, H., Nagata, K., Komatsu, T. and Tamura, T. 1993. Purification of a factor which provides a costimulatory signal for  $\gamma$ -interferon production. *Infect. Immun.* 61: 64-70.
2. Dinarello, C.A. 1994. The interleukin-1 family: 10 years of discovery. *FASEB J.* 8: 1314-1325.
3. Okamura, H., Tsutsi, H., Komatsu, T., Yutsudo, M., Hakura, A., Tanimoto, T., Torigoe, K., Okura, T., Nukada, Y. and Hattori, K. 1995. Cloning of a new cytokine that induces IFN- $\gamma$  production by T cells. *Nature* 378: 88-91.
4. Bazan, J.F., Timans, J.C. and Kastelein, R.A. 1996. A newly defined interleukin-1? *Nature* 379: 591.
5. Dinarello, C.A., Novick, D., Puren, A.J., Fantuzzi, G., Shapiro, L., Muhl, H., Yoon, D.Y., Reznikov, L.L., Kim, S.H. and Rubinstein, M. 1998. Overview of interleukin-18: more than an interferon- $\gamma$  inducing factor. *J. Leukoc. Biol.* 63: 658-664.
6. Novick, D., Kim, S.H., Fantuzzi, G., Reznikov, L.L., Dinarello, C.A. and Rubinstein, M. 1999. Interleukin-18 binding protein: a novel modulator of the Th1 cytokine response. *Immunity* 10: 127-136.

### CHROMOSOMAL LOCATION

Genetic locus: IL18BP (human) mapping to 11q13.4.

### SOURCE

IL-18BP (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of IL-18BP of human origin.

### PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-9460 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### STORAGE

Store at 4 $^{\circ}$  C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

### APPLICATIONS

IL-18BP (N-18) is recommended for detection of IL-18BP of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for IL-18BP siRNA (h): sc-105566, IL-18BP shRNA Plasmid (h): sc-105566-SH and IL-18BP shRNA (h) Lentiviral Particles: sc-105566-V.

Molecular Weight of glycosylated IL-18BP isoforms: 35-45 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203 or MCF7 whole cell lysate: sc-2206.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941.

### RESEARCH USE

For research use only, not for use in diagnostic procedures.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.