



## IL-18R (M-16): sc-34180

### BACKGROUND

Interleukin-18 (IL-18) has been identified as a molecule that induces IFN- $\gamma$  production and enhances NK cell cytotoxicity. IL-18 receptor (IL-18R) is a type I membrane protein present in lung, leukocytes, spleen, liver, thymus, prostate, small intestine, colon, placenta and heart, and absent from brain, skeletal muscle, pancreas and kidney. IL-18R is present in Hodgkin's disease cell lines, and does not bind IL-1 $\alpha$  or IL-1 $\beta$ . The association of IL-18 to IL-18R leads to activation of NF $\kappa$ B. At present two subunits of IL-18R have been characterized: IL-18R $\alpha$  and IL-18R $\beta$ . IL-18R $\alpha$  has been described as the ligand-binding chain and IL-18R $\beta$  as the signal-transduction chain.

### REFERENCES

1. Torigoe, K., Ushio, S., Okura, T., Kobayashi, S., Tani, M., Kunikata, T., Murakami, T., Sanou, O., Kojima, H., Fujii, M., Ohta, T., Ikeda, M., Ikegami, H. and Kurimoto, M. 1997. Purification and characterization of the human interleukin-18 receptor. *J. Biol. Chem.* 272: 25737-25742.
2. Strand, M.L., Wahlgren, A., Svechnikov, K., Zetterstrom, C., Satchell, B.P. and Soder, O. 2005. Interleukin-18 is expressed in rat testis and may promote germ cell growth. *Mol. Cell. Endocrinol.* 240: 64-73.
3. Vermot-Desroches, C., Subiger, O., Guenot, F., Sergent, E., Bonnin, B. and Wijdenes, J. 2005. Monoclonal antibodies specific for the IL-18 receptor. *Cell. Immunol.* 236: 101-104.
4. Zhou, Y., Yamaguchi, E., Fukui, Y., Konno, S., Maeda, Y., Kimata, K. and Nishimura, M. 2005. Enhanced expression of interleukin-18 receptor  $\alpha$  chain by CD4<sup>+</sup> T cells in sarcoidosis. *Chest* 128: 2497-2503.
5. Krasna, E., Kolesar, L., Slavcev, A., Valhova, S., Kronosova, B., Jaresova, M. and Striz, I. 2005. IL-18 receptor expression on epithelial cells is upregulated by TNF $\alpha$ . *Inflammation* 29: 33-37.
6. Asakawa, M., Kono, H., Amemiya, H., Matsuda, M., Suzuki, T., Maki, A. and Fujii, H. 2006. Role of interleukin-18 and its receptor in hepatocellular carcinoma associated with hepatitis C virus infection. *Int. J. Cancer.* 118: 564-570.

### CHROMOSOMAL LOCATION

Genetic locus: IL18R1 (human) mapping to 2q12; Il18r1 (mouse) mapping to 1 B.

### SOURCE

IL-18R (M-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of IL-18R of mouse 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-34180 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### RESEARCH USE

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

### APPLICATIONS

IL-18R (M-16) is recommended for detection of IL-18R of mouse and rat 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-18R siRNA (m): sc-45286.

### 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™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ 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™ Mounting Medium: sc-24941.

### STORAGE

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

### PROTOCOLS

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