# IL-18Rβ (S-14): sc-107637



The Power to Question

## **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. IL-18R is 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**

- Torigoe, K., Ushio, S., Okura, T., Kobayashi, S., Taniai, 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.
- Asakawa, M., Kono, H., Amemiya, H., Matsuda, M., Suzuki, T., Maki, A. and Fujii, H. 2005. Role of interleukin-18 and its receptor in hepatocellular carcinoma associated with hepatitis C virus infection. Int. J. Cancer. 118: 564-570.
- Strand, M.L., Wahlgren, A., Svechnikov, K., Zetterström, C., Setchell, B.P. and Söder, O. 2005. Interleukin-18 is expressed in rat testis and may promote germ cell growth. Mol. Cell. Endocrinol. 240: 64-73.
- 4. 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.
- 5. 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+ T cells in sarcoidosis. Chest 128: 2497-2503.
- 6. 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  $\mathsf{TNF}\alpha$ . Inflammation 29: 33-37.

# **CHROMOSOMAL LOCATION**

Genetic locus: II18rap (mouse) mapping to 1 B.

#### SOURCE

IL-18R $\beta$  (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of IL-18R $\beta$  of mouse origin.

## **PRODUCT**

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

Blocking peptide available for competition studies, sc-107637 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**

<code>IL-18R</code> $\beta$  (S-14) is recommended for detection of <code>IL-18R</code> $\beta$  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 <code>ELISA</code> (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for IL-18R $\beta$  siRNA (m): sc-146208, IL-18R $\beta$  shRNA Plasmid (m): sc-146208-SH and IL-18R $\beta$  shRNA (m) Lentiviral Particles: sc-146208-V.

Molecular Weight of IL-18Rβ: 68 kDa.

#### **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 or our catalog for detailed protocols and support products.

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