

IL-18 (M-19): sc-6179

BACKGROUND

Four structurally related IL-1 receptor ligands have been described. These include three agonists designated IL-1 α , IL-1 β and IL-1 γ /IL-18 and a specific receptor antagonist, IL-1R α . IL-1 α and IL-1 β play critical roles in the regulation of the immune response and inflammation, serving as activators of T and B lymphocytes and NK (natural killer) cells. IL-18 (also referred to as IL-1 γ) has been shown to augment the secretion of IFN- γ from T lymphocytes and increase NK cell activity in spleen cells. IL-18 exhibits 19% and 12% identity with IL-1 α and IL-1 β respectively over the 12 β -strands of the β -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 β pro-domain which must be cleaved by the serine protease ICE for optimal secretion and biological activity. Originally described as IGIF (IFN- γ -inducing factor), IL-18 is induced by mouse liver subsequent to challenge with lipopolysaccharide (LPS).

CHROMOSOMAL LOCATION

Genetic locus: Il18 (mouse) mapping to 9 A5.3.

SOURCE

IL-18 (M-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of IL-18 of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-6179 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

IL-18 (M-19) is recommended for detection of IL-18 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], 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-18 siRNA (m): sc-39658, IL-18 shRNA Plasmid (m): sc-39658-SH and IL-18 shRNA (m) Lentiviral Particles: sc-39658-V.

Molecular Weight of pro IL-18 inactive precursor: 24 kDa.

Molecular Weight of mature IL-18: 18 kDa.

Positive Controls: mouse liver extract: sc-2256 or NIH/3T3 whole cell lysate: sc-2210.

RESEARCH USE

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

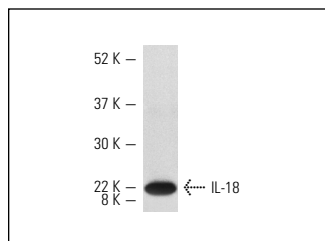
PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

STORAGE

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

DATA



IL-18 (M-19): sc-6179. Western blot analysis of mouse recombinant IL-18.

SELECT PRODUCT CITATIONS

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2. Qiu, L., et al. 2007. Less neurogenesis and inflammation in the immature than in the juvenile brain after cerebral hypoxia-ischemia. *J. Cereb. Blood Flow Metab.* 27: 785-794.
3. Bergsbaken, T., et al. 2007. Macrophage activation redirects yersinia-infected host cell death from apoptosis to caspase-1-dependent pyroptosis. *PLoS Pathog.* 3: e161.
4. Hsiang, C.Y., et al. 2009. Nuclear factor- κ B bioluminescence imaging-guided transcriptomic analysis for the assessment of host-biomaterial interaction *in vivo*. *Biomaterials* 30: 3042-3049.
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7. Zhu, C., et al. 2009. Irradiation to the immature brain attenuates neurogenesis and exacerbates subsequent hypoxic-ischemic brain injury in the adult. *J. Neurochem.* 111: 1447-1456.
8. Bani-Hani, A.H., et al. 2009. IL-18 neutralization ameliorates obstruction-induced epithelial-mesenchymal transition and renal fibrosis. *Kidney Int.* 76: 500-511.
9. Kempster, S.L., et al. 2011. Developmental control of the Nlrp6 inflammatory and a substrate, IL-18, in mammalian intestine. *Am. J. Physiol. Gastrointest. Liver Physiol.* 300: G253-G263.
10. Mucha, J., et al. 2014. MDSCs mediate angiogenesis and predispose canine mammary tumor cells for metastasis via IL-28/IL-28RA (IFN- λ) signaling. *PLoS ONE* 9: e103249.