IL-1F6 (G-13): sc-51301



The Power to Question

BACKGROUND

IL-1 (Interleukin-1) is a cytokine responsible for initiating a variety of activities through the activation of transcription factors, NFκB and AP-1, thereby promoting host response to injury or infection. The IL-1 superfamily is comprised of several ligands and receptors. IL-1F6, also known as interleukin-1 family member 6 (IL-1εF6) or interleukin-1 ϵ (IL-1 ϵ), is a secreted ligand belonging to this superfamily. IL-1F6 is expressed in a variety of tissues, including lymph node, spleen, thymus, leukocytes, tonsil, fetal brain and bone marrow. It exists as a nitroprotein, post-translationally modified with a nitro group on tyrosine residue 96. IL-1F6 activates the IL-1Rrp2 and IL-1RAcP-dependent pathway leading to NFκB activation. Similar to other family members, IL-1F6 can be regulated by bacterial lipopolysaccharide (LPS).

REFERENCES

- Smith, D.E., Renshaw, B.R., Ketchem, R.R., Kubin, M., Garka, K.E. and Sims, J.E. 2000. Four new members expand the interleukin-1 superfamily. J. Biol. Chem. 275: 1169-1175.
- 2. Hoever, G., Morgenstern, B., Preiser, W., Vogel, J.U., Hofmann, W.K., Bauer, G., Michaelis, M., Rabenau, H.F. and Doerr, H.W. 2004. Infection of cultured intestinal epithelial cells with severe acute respiratory syndrome coronavirus. Cell. Mol. Life Sci. 61: 2100-2112.
- 3. Towne, J.E., Garka, K.E., Renshaw, B.R., Virca, G.D. and Sims, J.E. 2004. Interleukin (IL)-1F6, IL-1F8, and IL-1F9 signal through IL-1Rrp2 and IL-1RAcP to activate the pathway leading to NFκB and MAPKs. J. Biol. Chem. 279: 13677-13688.
- Zhan, X. and Desiderio, D.M. 2006. Nitroproteins from a human pituitary adenoma tissue discovered with a nitrotyrosine affinity column and tandem mass spectrometry. Anal. Biochem. 354: 279-289.
- 5. Hasegawa, Y., Fukuda, S., Shimokawa, K., Kondo, S., Maeda, N. and Hayashizaki, Y. 2006. A RecA-mediated exon profiling method. Nucleic Acids Res. 34: e97.
- Chelvarajan, R.L., Liu, Y., Popa, D., Getchell, M.L., Getchell, T.V., Stromberg, A.J. and Bondada, S. 2006. Molecular basis of age-associated cytokine dysregulation in LPS-stimulated macrophages. J. Leukoc. Biol. 79: 1314-1327.
- 7. Burger, D., Dayer, J.M., Palmer, G. and Gabay, C. 2006. Is IL-1 a good therapeutic target in the treatment of arthritis? 20: 879-896.
- 8. Barksby, H.E., Lea, S.R., Preshaw, P.M. and Taylor, J.J. 2007. The expanding family of interleukin-1 cytokines and their role in destructive inflammatory disorders. Clin. Exp. Immunol. 149: 217-225.
- 9. Chackerian, A.A., Oldham, E.R., Murphy, E.E., Schmitz, J., Pflanz, S. and Kastelein, R.A. 2007. IL-1 receptor accessory protein and ST2 comprise the IL-33 receptor complex. J. Immunol. 179: 2551-2555.

STORAGE

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

RESEARCH USE

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

CHROMOSOMAL LOCATION

Genetic locus: IL1F6 (human) mapping to 2q12-q14.1; II1f6 (mouse) mapping to 2 A3.

SOURCE

IL-1F6 (G-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of IL-1F6 of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-51301 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

IL-1F6 (G-13) is recommended for detection of IL-1F6 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-1F6 siRNA (m): sc-72169.

Molecular Weight of IL-1F6: 18 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.

PROTOCOLS

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