

IL-1F5 (h): 293T Lysate: sc-113962

BACKGROUND

IL-1 (interleukin-1) is a cytokine responsible for initiating a variety of activities through the activation of transcription factors NF κ B and AP-1, thereby promoting host response to injury or infection. The IL-1 superfamily is comprised of several ligands and receptors. IL-1F5, also known as IL-1 δ , IL-1 like protein 1 (IL-1L1), IL-1HY1, IL-1ra (receptor antagonist) homolog 1 or IL-1-related protein 3 (IL-1rp3), is a secreted ligand belonging to this superfamily. IL-1F5 is expressed in monocytes and macrophages and is activated by endotoxins. It shares 47% sequence identity with IL-1ra and similarly lacks the loop between the fourth and fifth β -strands. IL-1F5 acts as an antagonist, inhibiting the IL-1F9 activation of NF κ B. Similar to other family members, IL-1F5 can be regulated by bacterial lipopolysaccharide (LPS).

REFERENCES

- Mulero, J.J., Pace, A.M., Nelken, S.T., Loeb, D.B., Correa, T.R., Drmanac, R. and Ford, J.E. 1999. IL1HY1: a novel interleukin-1 receptor antagonist gene. *Biochem. Biophys. Res. Commun.* 263: 702-706.
- Smith, D.E., Renshaw, B.R., Ketchum, 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.
- Kumar, S., McDonnell, P.C., Lehr, R., Tierney, L., Tzimas, M.N., Griswold, D.E., Capper, E.A., Tal-Singer, R., Wells, G.I., Doyle, M.L. and Young, P.R. 2000. Identification and initial characterization of four novel members of the interleukin-1 family. *J. Biol. Chem.* 275: 10308-10314.
- Busfield, S.J., Comrack, C.A., Yu, G., Chickering, T.W., Smutko, J.S., Zhou, H., Leiby, K.R., Holmgren, L.M., Gearing, D.P. and Pan, Y. 2000. Identification and gene organization of three novel members of the IL-1 family on human chromosome 2. *Genomics* 66: 213-216.
- Debets, R., Timans, J.C., Homey, B., Zurawski, S., Sana, T.R., Lo, S., Wagner, J., Edwards, G., Clifford, T., Menon, S., Bazan, J.F. and Kastelein, R.A. 2001. Two novel IL-1 family members, IL-1 antagonist and agonist of NF κ B activation through the orphan IL-1 receptor-related protein 2. *J. Immunol.* 167: 1440-1446.
- Dinarello, C.A. 2002. The IL-1 family and inflammatory diseases. *Clin. Exp. Rheumatol.* 20: S1-S13.
- Dunn, E.F., Gay, N.J., Bristow, A.F., Gearing, D.P., O'Neill, L.A. and Pei, X.Y. 2003. High-resolution structure of murine interleukin-1 homologue IL-1F5 reveals unique loop conformations for receptor binding specificity. *Biochemistry* 42: 10938-10944.
- Towne, J.E., Garka, K.E., Renshaw, B.R., Virca, G.D. and Sims, J.E. 2004. Interleukin (IL)-1F6, IL-1 to activate the pathway leading to NF κ B and MAPKs. *J. Biol. Chem.* 279: 13677-13678.
- 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.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

CHROMOSOMAL LOCATION

Genetic locus: IL36RN (human) mapping to 2q13.

PRODUCT

IL-1F5 (h): 293T Lysate represents a lysate of human IL-1F5 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

IL-1F5 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive IL-1F5 antibodies. Recommended use: 10-20 μ l per lane.

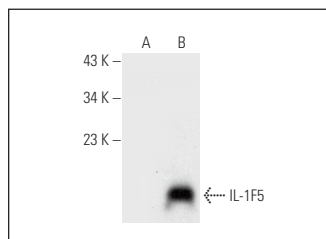
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

IL-1F5 (D-11): sc-398515 is recommended as a positive control antibody for Western Blot analysis of enhanced human IL-1F5 expression in IL-1F5 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



IL-1F5 (D-11): sc-398515. Western blot analysis of IL-1F5 expression in non-transfected: sc-117752 (A) and human IL-1F5 transfected: sc-113962 (B) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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