

SIGIRR (h): 293T Lysate: sc-111731

BACKGROUND

Single Ig IL-1-related receptor SIGIRR, also designated single immunoglobulin domain-containing IL-1R-related protein or toll/interleukin-1 receptor 8 (TIR8), is a member of the interleukin-1 receptor family. SIGIRR acts as a negative regulator of the IL-1R and toll-like receptor signaling pathways and reduces the recruitment of certain components to the TLR4 receptor. Subsequently, SIGIRR confers resistance to *P. aeruginosa* corneal infection. SIGIRR can form complexes with IL-1R1, MyD88, IRAK-1 and TRAF6 upon IL-1 stimulation and TLR4 after LPS stimulation. It is a single-pass type III membrane protein that is mainly expressed in kidney, lung and gut.

REFERENCES

1. Thomassen, E., Renshaw, B.R. and Sims, J.E. 1999. Identification and characterization of SIGIRR, a molecule representing a novel subtype of the IL-1R superfamily. *Cytokine* 11: 389-399.
2. Wald, D., Qin, J., Zhao, Z., Qian, Y., Naramura, M., Tian, L., Towne, J., Sims, J.E., Stark, G.R. and Li, X. 2003. SIGIRR, a negative regulator of toll-like receptor-interleukin-1 receptor signaling. *Nat. Immunol.* 4: 920-927.
3. Mantovani, A., Locati, M., Polentarutti, N., Vecchi, A. and Garlanda, C. 2004. Extracellular and intracellular decoys in the tuning of inflammatory cytokines and toll-like receptors: the new entry TIR8/SIGIRR. *J. Leukoc. Biol.* 75: 738-742.
4. Polentarutti, N., Rol, G.P., Muzio, M., Bosio, D., Camnasio, M., Riva, F., Zoja, C., Benigni, A., Tomasoni, S., Vecchi, A., Garlanda, C. and Mantovani, A. 2004. Unique pattern of expression and inhibition of IL-1 signaling by the IL-1 receptor family member TIR8/SIGIRR. *Eur. Cytokine Netw.* 14: 211-218.
5. Qin, J., Qian, Y., Yao, J., Grace, C. and Li, X. 2005. SIGIRR inhibits interleukin-1 receptor- and toll-like receptor 4-mediated signaling through different mechanisms. *J. Biol. Chem.* 280: 25233-25241.
6. Adib-Conquy, M., Adrie, C., Fitting, C., Gattolliat, O., Beyaert, R. and Cavaillon, J.M. 2006. Upregulation of MyD88s and SIGIRR, molecules inhibiting Toll-like receptor signaling, in monocytes from septic patients. *Crit. Care Med.* 34: 2377-2385.

CHROMOSOMAL LOCATION

Genetic locus: SIGIRR (human) mapping to 11p15.5.

PRODUCT

SIGIRR (h): 293T Lysate represents a lysate of human SIGIRR transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

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.

PROTOCOLS

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

APPLICATIONS

SIGIRR (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive SIGIRR antibodies. Recommended use: 10-20 µl per lane.

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

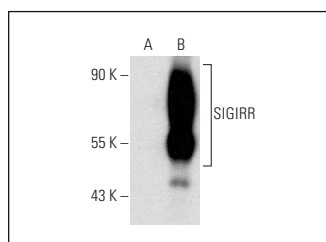
IGIRR (D-2): sc-365601 is recommended as a positive control antibody for Western Blot analysis of enhanced human SIGIRR expression in SIGIRR transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

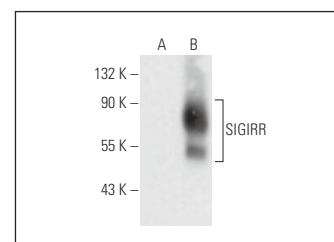
To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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



SIGIRR (D-2): sc-365601. Western blot analysis of SIGIRR expression in non-transfected: sc-117752 (A) and human SIGIRR transfected: sc-111731 (B) 293T whole cell lysates.



SIGIRR (A-4): sc-271864. Western blot analysis of SIGIRR expression in non-transfected: sc-117752 (A) and human SIGIRR transfected: sc-111731 (B) 293T whole cell lysates.

RESEARCH USE

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