

LIR-8 (h): 293T Lysate: sc-114107

BACKGROUND

The leukocyte immunoglobulin-like receptor (LIR) gene family maps to a cluster on chromosome 19 and encodes two subfamilies of LIR proteins, namely subfamily A and B. The subfamily B class of LIRs are characterized by the presence of a transmembrane domain, two to four extracellular Ig-like (immunoglobulin-like) domains and two to four cytoplasmic immunoreceptor tyrosine-based inhibitory motifs (ITIMs). Class B LIRs are expressed on antigen-presenting B cells and monocytes where they function to bind MHC class I molecules, thereby inducing an inhibitory cascade that prevents immune system responses throughout the cell. LIR-8 (leukocyte immunoglobulin-like receptor 8), also known as LILRB5 or CD85C, is a 590 amino acid single-pass type I membrane protein that contains four Ig-like domains and belongs to the B subfamily of LIR receptors. LIR-8 exists as two alternatively spliced isoforms and is thought to function as a receptor for MHC class I molecules, possibly contributing to inhibitory cascades within the immune system.

REFERENCES

1. Borges, L., Hsu, M.L., Fanger, N., Kubin, M. and Cosman, D. 1997. A family of human lymphoid and myeloid Ig-like receptors, some of which bind to MHC class I molecules. *J. Immunol.* 159: 5192-5196.
2. Arm, J.P., Nwankwo, C. and Austen, K.F. 1997. Molecular identification of a novel family of human Ig superfamily members that possess immunoreceptor tyrosine-based inhibition motifs and homology to the mouse gp49B1 inhibitory receptor. *J. Immunol.* 159: 2342-2349.
3. Online Mendelian Inheritance in Man, OMIM[™]. 2001. Johns Hopkins University, Baltimore, MD. MIM Number: 604814. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Poon, K., Montamat-Sicotte, D., Cumberbatch, N., McMichael, A.J. and Callan, M.F. 2005. Expression of leukocyte immunoglobulin-like receptors and natural killer receptors on virus-specific CD8⁺ T cells during the evolution of Epstein-Barr virus-specific immune responses *in vivo*. *Viral Immunol.* 18: 513-522.
5. Hirayasu, K., Ohashi, J., Tanaka, H., Kashiwase, K., Ogawa, A., Takanashi, M., Satake, M., Jia, G.J., Chinge, N.O., Sideltseva, E.W., Tokunaga, K. and Yabe, T. 2008. Evidence for natural selection on leukocyte immunoglobulin-like receptors for HLA class I in Northeast Asians. *Am. J. Hum. Genet.* 82: 1075-1083.
6. Mori, Y., Tsuji, S., Inui, M., Sakamoto, Y., Endo, S., Ito, Y., Fujimura, S., Koga, T., Nakamura, A., Takayanagi, H., Itoi, E. and Takai, T. 2008. Inhibitory immunoglobulin-like receptors LILRB and PIR-B negatively regulate osteoclast development. *J. Immunol.* 181: 4742-4751.
7. Tedla, N., Lee, C.W., Borges, L., Geczy, C.L. and Arm, J.P. 2008. Differential expression of leukocyte immunoglobulin-like receptors on cord-blood-derived human mast cell progenitors and mature mast cells. *J. Leukoc. Biol.* 83: 334-343.
8. McIntire, R.H., Sifers, T., Platt, J.S., Ganacias, K.G., Langat, D.K. and Hunt, J.S. 2008. Novel HLA-G-binding leukocyte immunoglobulin-like receptor (LILR) expression patterns in human placentas and umbilical cords. *Placenta* 29: 631-638.

CHROMOSOMAL LOCATION

Genetic locus: LILRB5 (human) mapping to 19q13.42.

PRODUCT

LIR-8 (h): 293T Lysate represents a lysate of human LIR-8 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

LIR-8 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive LIR-8 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.

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.

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.