

ILT (H-300): sc-48748

BACKGROUND

Leukocyte immunoglobulin-like receptors (LIRs) are members of the immunoglobulin superfamily of glycoproteins and are predominantly expressed by monocytes, B cells, dendritic cells, natural killer (NK) cells, peripheral blood leukocytes and tissues such as placenta, lung and liver. These receptors all contain a cytoplasmic immunoreceptor tyrosine-based inhibitory motif (ITIM), have an inhibitory function and are type I membrane proteins. When they bind to MHC (or other ligands) and ITIM is tyrosine phosphorylated, protein-tyrosine phosphatases are recruited and an inhibitory signal cascade triggered. ILT-5 (also designated CD85a or Lir-3) acts as a receptor for class I MHC antigens and contains three copies of the ITIM motif.

REFERENCES

1. Wagtmann, N., Rojo, S., Eichler, E., Mohrenweiser, H. and Long, E.O. 1997. A new human gene complex encoding the killer cell inhibitory receptors and related monocyte/macrophage receptors. *Curr. Biol.* 7: 615-618.
2. Cosman, D., Fanger, N., Borges, L., Kubin, M., Chin, W., Peterson, L. and Hsu, M.L. 1997. A novel immunoglobulin superfamily receptor for cellular and viral MHC class I molecules. *Immunity* 7: 273-282.
3. Colonna, M., Navarro, F., Bellon, T., Llano, M., Garcia, P., Samaridis, J., Angman, L., Cella, M. and Lopez-Botet, M. 1997. A common inhibitory receptor for major histocompatibility complex class I molecules on human lymphoid and myelo-monocytic cells. *J. Exp. Med.* 186: 1809-1818.
4. Online Mendelian Inheritance in Man, OMIM™. 2000. Johns Hopkins University, Baltimore, MD. MIM Number: 604811. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Dietrich, J., Cella, M. and Colonna, M. 2001. Ig-like transcript 2 (ILT2)/leukocyte Ig-like receptor 1 (LIR1) inhibits TCR signaling and Actin cytoskeleton reorganization. *J. Immunol.* 166: 2514-2521.
6. LocusLink Report (LocusID: 10859). <http://www.ncbi.nlm.nih.gov/LocusLink/>

CHROMOSOMAL LOCATION

Genetic locus: LILRB1 (human) mapping to 19q13.4.

SOURCE

ILT (H-300) is a rabbit polyclonal antibody raised against amino acids 162-461 mapping within an extracellular domain of ILT-2 of human origin.

PRODUCT

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

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.

APPLICATIONS

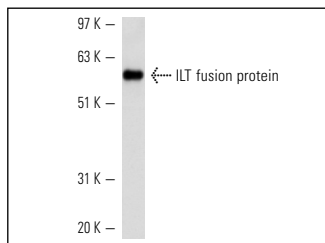
ILT (H-300) is recommended for detection of ILT family members 1, 2, 4, 5 and 6 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of ILT: 71 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



ILT (H-300): sc-48748. Western blot analysis of human recombinant ILT fusion protein.

PROTOCOLS

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

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Try **ILT (A-9): sc-166580** or **ILT (H-5): sc-515288**, our highly recommended monoclonal alternatives to ILT (H-300).