

# ILT (H-5): sc-515288

## BACKGROUND

Leukocyte immunoglobulin-like receptors (ILTs, also known as 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. There are several members of the ILT family, including ILT-1, ILT-2, ILT-3, ILT-4, ILT-5, ILT-6, ILT-7, ILT-8, ILT-11, LIR-6 and LIR-8. These ILT proteins are divided into two subfamilies, namely subfamily A (ILT-1, ILT-6, ILT-7, ILT-8, ILT-11 and LIR-6) and subfamily B (ILT-2, ILT-3, ILT-4, ILT-5 and LIR-8), the former of which function as stimulating receptors and the latter of which function as inhibitory receptors. Characteristically, members of subfamily A have trans-membrane regions containing a charged arginine residue through which they initiate stimulatory cascades, while members of subfamily B contain cytoplasmic immunoreceptor tyrosine-based inhibitory motifs (ITIMs) through which they induce inhibitory signaling cascades.

## REFERENCES

1. Samaridis, J. and Colonna, M. 1997. Cloning of novel immunoglobulin superfamily receptors expressed on human myeloid and lymphoid cells: structural evidence for new stimulatory and inhibitory pathways. *Eur. J. Immunol.* 27: 660-665.
2. Cosman, D., et al. 1997. A novel immunoglobulin superfamily receptor for cellular and viral MHC class I molecules. *Immunity* 7: 273-282.
3. Colonna, M., et al. 1997. A common inhibitory receptor for major histocompatibility complex class I molecules on human lymphoid and myelomonocytic cells. *J. Exp. Med.* 186: 1809-1818.
4. André, P., et al. 2001. New nomenclature for MHC receptors. *Nat. Immunol.* 2: 661.
5. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 604811. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

## SOURCE

ILT (H-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 29-52 near the N-terminus of ILT-2 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ILT (H-5) is available conjugated to agarose (sc-515288 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515288 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515288 PE), fluorescein (sc-515288 FITC), Alexa Fluor® 488 (sc-515288 AF488), Alexa Fluor® 546 (sc-515288 AF546), Alexa Fluor® 594 (sc-515288 AF594) or Alexa Fluor® 647 (sc-515288 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515288 AF680) or Alexa Fluor® 790 (sc-515288 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-515288 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## APPLICATIONS

ILT (H-5) is recommended for detection of ILT-1, ILT-2, ILT-3, ILT-4, ILT-5, ILT-6, ILT-7, ILT-8, ILT-11 and LIR-6 mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

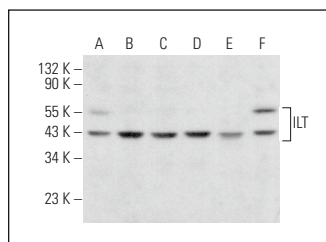
Molecular Weight of different ILT proteins: 33-71 kDa.

Positive Controls: c4 whole cell lysate: sc-364186, RAW 264.7 whole cell lysate: sc-2211 or BW5147 cell lysate: sc-3800.

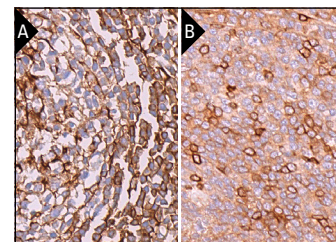
## RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



ILT (H-5): sc-515288. Western blot analysis of ILT expression in WEHI-231 (A), c4 (B), RAW 264.7 (C), BW5147 (D), MH-S (E) and EOC 20 (F) whole cell lysates.



ILT (H-5): sc-515288. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lymph node tissue showing membrane and cytoplasmic staining of cells in germinal center and cells in non-germinal center (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human spleen tissue showing membrane and cytoplasmic staining of subset of cells in white pulp and subset of cells in red pulp (B).

## 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.

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