

# CD300LF (Y-14): sc-161464

## BACKGROUND

CD300LF (CD300 molecule-like family member f), also known as NKIR (NK inhibitory receptor), IREM1 (immune receptor expressed on myeloid cells 1), CLM1 (CMRF35-like molecule 1) or IgSF13 (immunoglobulin superfamily member 13), is a 290 amino acid single-pass type I membrane protein that functions as an inhibitory receptor for myeloid cells and mast cells. As a member of the CD300 family, CD300LF contains one Ig-like V-type (immunoglobulin-like) domain and recruits SHP or SHIP to mediate negative regulatory signals. CD300LF inhibits osteoclast formation and is highly expressed in lung, spleen, peripheral blood leukocytes and monocytes. CD300LF exists as six alternatively spliced isoforms that are encoded by a gene located on human chromosome 17q25.1.

## REFERENCES

- Chung, D.H., et al. 2003. CMRF-35-like molecule-1, a novel mouse myeloid receptor, can inhibit osteoclast formation. *J. Immunol.* 171: 6541-6548.
- Sui, L., et al. 2004. IgSF13, a novel human inhibitory receptor of the immunoglobulin superfamily, is preferentially expressed in dendritic cells and monocytes. *Biochem. Biophys. Res. Commun.* 319: 920-928.
- Alvarez-Errico, D., et al. 2004. IREM-1 is a novel inhibitory receptor expressed by myeloid cells. *Eur. J. Immunol.* 34: 3690-3701.
- Poole, A.W. and Jones, M.L. 2005. A SHP'ing tale: perspectives on the regulation of SHP-1 and SHP-2 tyrosine phosphatases by the C-terminal tail. *Cell. Signal.* 17: 1323-1332.
- Online Mendelian Inheritance in Man, OMIM™. 2005. Johns Hopkins University, Baltimore, MD. MIM Number: 609807. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Alvarez-Errico, D., et al. 2007. The IREM-1 (CD300f) inhibitory receptor associates with the p85 $\alpha$  subunit of phosphoinositide 3-kinase. *J. Immunol.* 178: 808-816.

## CHROMOSOMAL LOCATION

Genetic locus: Cd300lf (mouse) mapping to 11 E2.

## SOURCE

CD300LF (Y-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of CD300LF of mouse origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-161464 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

CD300LF (Y-14) is recommended for detection of CD300LF of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with CD300LB or CD300LG.

Suitable for use as control antibody for CD300LF siRNA (m): sc-142194, CD300LF shRNA Plasmid (m): sc-142194-SH and CD300LF shRNA (m) Lentiviral Particles: sc-142194-V.

Molecular Weight of CD300LF: 32 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.