

## KIR2DL3 (E-5): sc-398606



The Power to Question

## BACKGROUND

NKAT (NK-associated transcripts) gene products, known as killer immunoglobulin-like receptors or KIRs, downregulate the cytotoxicity of NK cells upon recognition of specific class I major histocompatibility complex (MHC) molecules on target cells. This family of receptors is characterized by an extracellular region with two to three immunoglobulin-superfamily domains and a cytoplasmic domain with an antigen receptor activation motif (ARAM). KIRs and other inhibitory receptors also possess a common cytoplasmic sequence (I/VxYxxL/V) known as an ITIM (immunoreceptor tyrosine-based inhibitory motif). The human inhibitory human killer cell immunoglobulin-like receptor 2DL3 (KIR2DL3), also referred to as CD158b, is an inhibitory receptor that is specific for the human MHC class I molecule HLA-Cw3 and related alleles.

## REFERENCES

1. Cambiaggi, A., et al. 1999. Modulation of T-cell functions in KIR2DL3 (CD158b) transgenic mice. *Blood* 94: 2396-2402.
2. Maenaka, K., et al. 1999. Crystal structure of the human p58 killer cell inhibitory receptor (KIR2DL3) specific for HLA-Cw3-related MHC class I. *Structure* 7: 391-398.
3. Uhrberg, M., et al. 2002. Definition of gene content for nine common group B haplotypes of the Caucosoid population: KIR haplotypes contain between seven and eleven KIR genes. *Immunogenetics* 54: 221-229.
4. Moodie, S.J., et al. 2002. Analysis of candidate genes on chromosome 19 in c study of the KIR and LILR gene clusters. *Eur. J. Immunogenet.* 29: 287-291.
5. Keaney, L., et al. 2004. Investigation of killer cell immunoglobulin-like receptor gene diversity III. KIR2DL3. *Tissue Antigens* 64: 188-194.

## CHROMOSOMAL LOCATION

Genetic locus: KIR2DL3/KIR3DL3 (human) mapping to 19q13.42, KIR2DS3 (human) mapping to 19q13.4.

## SOURCE

KIR2DL3 (E-5) is a mouse monoclonal antibody raised against amino acids 260-303 mapping within an internal region of KIR2DL3 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.

KIR2DL3 (E-5) is available conjugated to agarose (sc-398606 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398606 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398606 PE), fluorescein (sc-398606 FITC), Alexa Fluor® 488 (sc-398606 AF488), Alexa Fluor® 546 (sc-398606 AF546), Alexa Fluor® 594 (sc-398606 AF594) or Alexa Fluor® 647 (sc-398606 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398606 AF680) or Alexa Fluor® 790 (sc-398606 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

KIR2DL3 (E-5) is recommended for detection of KIR2DL3, KIR2DS3 and KIR3DL3 of 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight (predicted) of KIR2DL3: 38 kDa.

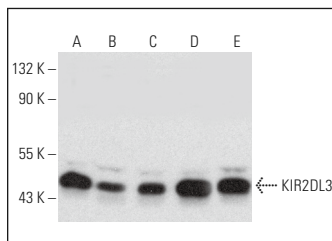
Molecular Weight (observed) of KIR2DL3: 52 kDa.

Positive Controls: mouse liver extract: sc-2256, Jurkat whole cell lysate: sc-2204 or human tonsil extract: sc-364263.

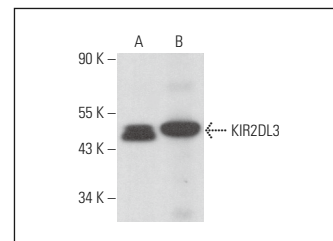
## RECOMMENDED SUPPORT REAGENTS

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.

## DATA



KIR2DL3 (E-5): sc-398606. Western blot analysis of KIR2DL3 expression in HuT 78 (A), Jurkat (B), ALL-SIL (C), KARPAS-299 (D) and CCRF-CEM (E) whole cell lysates.



KIR2DL3 (E-5): sc-398606. Western blot analysis of KIR2DL3 expression in human tonsil (A) and mouse liver (B) tissue extracts.

## 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.

## PROTOCOLS

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