KIR2DL3 (1.BB.234): sc-71467



The Power to Question

BACKGROUND

NKAT (NK-associated transcripts) gene products, known as killer immuno-globulin-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

- Cambiaggi, A., Darche, S., Guia, S., Kourilsky, P., Abastado, J.P. and Vivier, E. 1999. Modulation of T cell functions in KIR2DL3 (CD158b) transgenic mice. Blood 94: 2396-2402.
- Maenaka, K., Juji, T., Stuart, D.I. and Jones, E.Y. 1999. Crystal structure of the human p58 killer cell inhibitory receptor (KIR2DL3) specific for HLA-Cw3related MHC class I. Structure 7: 391-398.
- Uhrberg, M., Parham, P. and Wernet, P. 2002. Definition of gene content for nine common group B haplotypes of the Caucasoid population: KIR haplotypes contain between seven and eleven KIR genes. Immunogenetics 54: 221-229.
- Moodie, S.J., Norman, P.J., King, A.L., Fraser, J.S., Curtis, D., Ellis, H.J., Vaughan, R.W. and Ciclitira, P.J. 2002. Analysis of candidate genes on chromosome 19 in coeliac disease: an association study of the KIR and LILR gene clusters. Eur. J. Immunogenet. 29: 287-291.
- Keaney, L., Williams, F., Meenagh, A., Sleator, C. and Middleton, D. 2004. Investigation of killer cell immunoglobulin-like receptor gene diversity III. KIR2DL3. Tissue Antigens 64: 188-194.
- Vitale, M., Carlomagno, S., Falco, M., Pende, D., Romeo, E., Rivera, P., Della Chiesa, M., Mavilio, D. and Moretta, A. 2004. Isolation of a novel KIR2DL3specific mAb: comparative analysis of the surface distribution and function of KIR2DL2, KIR2DL3 and KIR2DS2. Int. Immunol. 16: 1459-1466.
- Trompeter, H.I., Gómez-Lozano, N., Santourlidis, S., Eisermann, B., Wernet, P., Vilches, C. and Uhrberg, M. 2005. Three structurally and functionally divergent kinds of promoters regulate expression of clonally distributed killer cell Ig-like receptors (KIR), of KIR2DL4 and of KIR3DL3. J. Immunol. 174: 4135-4143.
- 8. Montes-Cano, M.A., Caro-Oleas, J.L., Romero-Gómez, M., Diago, M., Andrade, R., Carmona, I., Aguilar Reina, J., Núñez-Roldán, A. and González-Escribano, M.F. 2006. HLA-C and KIR genes in hepatitis C virus infection. Hum. Immunol. 66: 1106-1109.
- Jones, D.C., Edgar, R.S., Ahmad, T., Cummings, J.R., Jewell, D.P., Trowsdale, J. and Young, N.T. 2006. Killer Ig-like receptor (KIR) genotype and HLA ligand combinations in ulcerative colitis susceptibility. Genes Immun. 7: 576-582.

CHROMOSOMAL LOCATION

Genetic locus: KIR2DL3 (human) mapping to 19q13.42.

SOURCE

KIR2DL3 (1.BB.234) is a mouse monoclonal antibody raised against NK cell clone E57 of human origin.

PRODUCT

Each vial contains 100 $\mu g \; lg G_1$ in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

KIR2DL3 (1.BB.234) is recommended for detection of KIR2DL3 of human origin by immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and flow cytometry (1 μ g per 1 x 10⁶ cells).

Suitable for use as control antibody for KIR2DL3 siRNA (h): sc-106736, KIR2DL3 shRNA Plasmid (h): sc-106736-SH and KIR2DL3 shRNA (h) Lentiviral Particles: sc-106736-V.

Molecular Weight (predicted) of KIR2DL3: 38 kDa.

Molecular Weight (observed) of KIR2DL3: 52 kDa.

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 for detailed protocols and support products.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 Furope +00800 4573 8000 49 6221 4503 0 www.scbt.com