SANTA CRUZ BIOTECHNOLOGY, INC.

CD19 (LT19): sc-51529



BACKGROUND

CD19 is a transmembrane glycoprotein that contains two extracellular immunoglobulin-like domains. CD19 is selectively expressed on the cell surface of B lymphocytes, where it activates intracellular signaling cascades involving both Ras and phosphatidylinositol 3-kinase pathways. Activation of CD19 results in cross-linking of the membrane protein immunoglobulin chains and the subsequent association with Src family protein tyrosine kinases (PTK). Expression of CD19 is continuous throughout B cell development and through terminal differentiation of B cells into plasma cells. CD19 forms functional complexes with B lymphocyte surface proteins, including Integrin β 1, CD21 and CD81, which are involved in regulating B cell development.

REFERENCES

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- Uckun, F., et al. 1993. Signal transduction through the CD19 receptor during discrete developmental stages of human B cell ontogeny. J. Biol. Chem. 268: 21172-21184.
- 4. Weng, W., et al. 1994. Signaling through CD19 activates Vav/mitogenactivated protein kinase pathway and induces formation of a CD19/Vav/ phosphatidylinositol 3-kinase complex in human B cell precursors. J. Biol. Chem. 269: 32514-32521.
- Zhou, L., et al. 1994. Tissue-specific expression of the human CD19 gene in transgenic mice inhibits antigen-independent B lymphocyte development. Mol. Cell. Biol. 14: 3884-3894.
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CHROMOSOMAL LOCATION

Genetic locus: CD19 (human) mapping to 16p11.2.

SOURCE

CD19 (LT19) is a mouse monoclonal antibody raised against human B lymphoblast cell line Daudi.

PRODUCT

Each vial contains 100 $\mu g~lgG_1$ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD19 (LT19) is available conjugated either phycoerythrin (sc-51529 PE, 100 tests in 2 ml) or fluorescein (sc-51529 FITC, 100 tests in 2 ml), for IF, IHC(P) and FCM.

APPLICATIONS

CD19 (LT19) is recommended for detection of CD19 of human origin by immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 μ g per 1 x 10⁶ cells).

Suitable for use as control antibody for CD19 siRNA (h): sc-29968, CD19 shRNA Plasmid (h): sc-29968-SH and CD19 shRNA (h) Lentiviral Particles: sc-29968-V.

Molecular Weight of CD19: 95 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, NAMALWA cell lysate: sc-2234 or BJAB whole cell lysate: sc-2207.

DATA



CD19 (LT19): sc-51529. Indirect FCM analysis of human peripheral blood leukocytes stained with CD19 (LT19), followed by PE-conjugated goat anti-mouse $\lg G_1$: sc-3764. Black line histogram represents the isotype control, normal mouse $\lg G_1$: sc-3877.

STORAGE

Store at 4° C, **D0 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.



See **CD19 (B-1): sc-390244** for CD19 antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647.