CD223 (C9B7W): sc-32750

BACKGROUND

CD223 (Lymphocyte activation gene-3, LAG-3) is a high affinity MHC class II ligand present on the surface of $CD4^+/CD8^+$ T cells and NK cells. CD223 shares homology in structure to CD4 molecules, having four similar extracellular Ig-like domains and structural motifs between D1-D3 and D2-D4 domains. CD223 has a glutamic acid-proline (EP) repetitive sequence found in other functionally distinct mammalian, parasitic, and bacterial proteins that may influence a conserved biological function. $CD223^+/CD4^+/CD8^+$ T cells can associate with the T cell receptor (TCR) and downregulate TCR signaling *in vitro*. CD223 inhibits CD4-dependent T cell function via its cytoplasmic domain . CD223 Lys-468 within a conserved "KIEELE" motif is essential for interaction with downstream signaling molecules.

REFERENCES

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3. LocusLink Report (LocusID: 3902). http://www.ncbi.nlm.nih.gov/LocusLink/
4. Andreae, S., et al. 2002. Maturation and activation of dendritic cells induced by lymphocyte activation gene-3 (CD223). J. Immunol. 168: 3874-3880.
5. Workman, C.J., et al. 2002. Phenotypic analysis of the murine CD4-related glycoprotein, CD223 (LAG-3). Eur. J. Immunol. 32: 2255-2263.
6. Workman, C.J., et al. 2002. Cutting edge: molecular analysis of the negative regulatory function of lymphocyte activation gene-3. J. Immunol. 169: 5392-5395.
7. Buisson, S., et al. 2003. MHC class II engagement by its ligand LAG-3 (CD223) leads to a distinct pattern of chemokine and chemokine receptor expression by human dendritic cells. Vaccine 21: 862-868.

CHROMOSOMAL LOCATION

Genetic locus: LAG3 (human) mapping to 12p13.3; LAG3 (mouse) mapping to 6.

SOURCE

CD223 (C9B7W) is a rat monoclonal antibody raised against a fusion protein consisting of the entire extracellular region of mouse CD223 with mouse IgG_1 and recognizes an epitope in the D2 domain of CD223.

PRODUCT

Each vial contains 200 µg IgG_1 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Available as phycoerythrin (sc-32750 PE) or fluorescein (sc-32750 FITC) conjugates for flow cytometry, 100 tests.

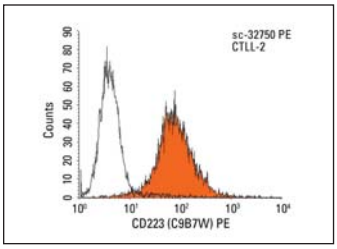
APPLICATIONS

CD223 (C9B7W) is recommended for detection of CD223 of mouse origin by flow cytometry (1 µg per 1 x 10^6 cells).

Suitable for use as control antibody for CD223 siRNA (m): sc-44548.

Molecular Weight of CD223: 70 kDa.

DATA



CD223 (C9B7W) PE: sc-32750 PE. FCM analysis of CTLL-2 cells. Black line histogram represents the isotype control, normal rat IgG_1: sc-2871.

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 or our catalog for detailed protocols and support products.