SANTA CRUZ BIOTECHNOLOGY, INC.

SLAM (1.BB.18): sc-73035



BACKGROUND

Following occupancy of the T cell receptor by antigen, T cell proliferation and lymphokine production are determined by a second costimulatory signal delivered by a ligand expressed on antigen-presenting cells. SLAM (for signaling lymphocyte-activation molecule, also designated CDw150) is a novel receptor on T cells that, when engaged, potentiates T cell expansion in a CD28-independent manner. SAP (for SLAM-associated protein) contains an SH2 domain and functions to inhibit SH-PTP2 recruitment to the SLAM docking site, an activity induced by Fyn phosphorylation of SLAM. Mutations of the SAP gene may be associated with X-linked lympho-proliferative disease (XLP).

REFERENCES

- Freeman, G.J., Gray, G.S., Gimmi, C.D., Lombard, D.B., Zhou, L.J., White, M., Fingeroth, J.D., Gribben, J.G. and Nadler, L.M. 1991. Structure, expression and T cell costimulatory activity of the murine homologue of the human B lymphocyte activation antigen B7. J. Exp. Med. 174: 625-631.
- Cocks, B.G., Chang, C.C., Carballido, J.M., Yssel, H., de Vries, J.E. and Aversa, G. 1995. A novel receptor involved in T cell activation. Nature 376: 260-263.
- Aversa, G., Carballido, J., Punnonen, J., Chang, C.C., Hauser, T., Cocks, B.G. and De Vries, J.E. 1997. SLAM and its role in T cell activation and Th cell responses. Immunol. Cell Biol. 75: 202-205.
- Aversa, G., Chang, C.C., Carballido, J.M., Cocks, B.G. and de Vries, J.E. 1997. Engagement of the signaling lymphocytic activation molecule (SLAM) on activated T cells results in IL-2-independent, cyclosporin A-sensitive T cell proliferation and IFN-y production. J. Immunol. 158: 4036-4044.
- Favero, J. and Lafont, V. 1998. Effector pathways regulating T cell activation. Biochem. Pharmacol. 56: 1539-1547.
- Sayos, J., Wu, C., Morra, M., Wang, N., Zhang, X., Allen, D., van Schaik, S., Notarangelo, L., Geha, R., Roncarolo, M.G., Oettgen, H., De Vries, J.E., Aversa, G. and Terhorst, C. 1998. The X-linked lymphoproliferative-disease gene product SAP regulates signals induced through the co-receptor SLAM. Nature 395: 462-469.

CHROMOSOMAL LOCATION

Genetic locus: SLAMF1 (human) mapping to 1q22-q23.

SOURCE

SLAM (1.BB.18) is a mouse monoclonal antibody raised against an activated B cell line 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.

STORAGE

Store at 4° C, **D0 NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

SLAM (1.BB.18) is recommended for detection of SLAM 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 SLAM siRNA (h): sc-42974.

Molecular Weight of SLAM: 70 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

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.