SANTA CRUZ BIOTECHNOLOGY, INC.

Ciao 1 (1-339): sc-4444 WB

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

T cell receptors activate immune responses by recognizing antigen and initiating a cascade of intracellular signal transduction events, eventually culminating in cell proliferation and differentiation (1). Both protein tyrosine kinases and PLCg are activated by this event. LAT, or linker for activation of T cells, is an integral membrane protein that has been shown to associate with PLCg1, as well as GRB2 and the p85 subunit of PI 3-kinase. Binding of these signaling molecules to LAT is associated with phosphorylation of LAT by ZAP-70/Syk tyrosine kinases. LAT appears to play a role in activation of transcription mediated by AP-1 and NF-AT following stimulation of the T cell receptor, suggesting that it acts as a linker protein in T cell activation. LAT protein is palmitoylated, and this modification is required for its tyrosine phosphorylation and localization to glycolipid-enriched microdomains.

REFERENCES

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4. Cantrell, D. 1998. The real LAT steps forward. Trends Cell. Biol. 8: 180-182.
5. Zhang, W., Trible, R.P., and Samelson, L.E. 1998. LAT palmitoylation: its essential role in membrane microdomain targeting and tyrosine phosphorylation during T cell activation. Immunity. 9: 239-246.
6. Brdicka, T., Cerny, J., and Horejsi, V. 1998. T cell receptor signalling results in rapid tyrosine phosphorylation of the linker protein LAT present in detergent-resistant membrane microdomains. Biochem. Biophys. Res. Commun. 248: 356-360.

SOURCE

Ciao 1 (1-339) is expressed in *E. coli* as a 70 kDa tagged fusion protein corresponding to amino acids 1-339 of Ciao 1 of human origin.

PRODUCT

Ciao 1 (1-339) is purified from bacterial lysates (>98%) by glutathione agarose affinity chromatography; supplied as 10 µg in 0.1 ml SDS-PAGE loading buffer.

STORAGE

Store at -20° C; stable for one year from the date of shipment.

APPLICATIONS

Ciao 1 (1-339) is suitable as a Western blotting control for sc-8322, sc-8367 and sc-8368.

RESEARCH USE

For research use only, not for use in diagnostic procedures.