Cbp (h2): 293T Lysate: sc-177033



The Power to Question

BACKGROUND

The Src family of protein tyrosine kinases (Src-PTKs) is important in the regulation of growth and differentiation of eukaryotic cells. The activity of Src-PTKs in cells of different types is negatively controlled by Csk. Csk binding protein (Cbp, also designated phosphoprotein associated with glycosphingo-lipid-enriched microdomains (GEMs) or PAG) is a transmembrane phosphoprotein that is ubiquitously expressed and binds specifically to the SH2 domain of Csk. Cbp is involved in the membrane localization of Csk and in the Csk-mediated inhibition of c-Src. In the plasma membrane Cbp is exclusively localized in the $G_{\rm M1}$ ganglioside-enriched detergent-insoluble membrane domain, which is important in receptor-mediated signalling. Cbp is a component of the regulatory mechanism controlling the activity of membrane-associated Src-PTKs.

REFERENCES

- 1. Simons, K. and Ikonen, E. 1997. Functional rafts in cell membranes. Nature 387: 569-572.
- 2. Brown, D.A. and London, E. 1998. Functions of lipid rafts in biological membranes. Annu. Rev. Cell Dev. Biol. 14: 111-136.
- 3. Anderson, R.G. 1998. The caveolae membrane system. Annu. Rev. Biochem. 67: 199-225.
- Xavier, R., Brennan, T., Li, Q., McCormack, C. and Seed, B. 1998. Membrane compartmentation is required for efficient T cell activation. Immunity 8: 723-732
- Montixi, C., Langlet, C., Bernard, A.M., Thimonier, J., Dubois, C., Wurbel, M.A., Chauvin, J.P., Pierres, M. and He, H.T. 1998. Engagement of T cell receptor triggers its recruitment to low-density detergent-insoluble membrane domains. EMBO J. 17: 5334-5348.
- 6. Brdicka, T., Pavlistova, D., Leo, A., Bruyns, E., Korinek, V., Angelisova, P., Scherer, J., Shevchenko, A., Shevchenko, A., Hilgert, I., Cerny, J., Drbal, K., Kuramitsu, Y., Kornacker, B., Horejsi, V. and Schraven, B. 2000. Phosphoprotein associated with glycosphingolipid-enriched microdomains (PAG), a novel ubiquitously expressed transmembrane adaptor protein, binds the protein tyrosine kinase Csk and is involved in regulation of T cell activation. J. Exp. Med. 191: 1591-1604.
- Semac, I., Palomba, C., Kulangara, K., Klages, N., van Echten-Deckert, G., Borisch, B. and Hoessli, D.C. 2003. Anti-CD20 therapeutic antibody Rituximab modifies the functional organization of rafts/microdomains of B lymphoma cells. Cancer. Res. 63: 534-540.

CHROMOSOMAL LOCATION

Genetic locus: PAG1 (human) mapping to 8q21.13.

PRODUCT

Cbp (h2): 293T Lysate represents a lysate of human Cbp transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

Cbp (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive Cbp antibodies. Recommended use: $10-20~\mu$ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

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 fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com