

# Cbp (H-100): sc-25748

## 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 Glycosphingolipid-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 GM1 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.
4. Xavier, R., et al. 1998. Membrane compartmentation is required for efficient T cell activation. *Immunity* 8: 723-732.
5. Montixi, C., et al. 1998. Engagement of T cell receptor triggers its recruitment to low-density detergent-insoluble membrane domains. *EMBO J.* 17: 5334-5348.
6. Brdicka, T. et al. 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: 1591-604.

## CHROMOSOMAL LOCATION

Genetic locus: PAG1 (human) mapping to 8q21.13; Pag1 (mouse) mapping to 3 A1.

## SOURCE

Cbp (H-100) is a rabbit polyclonal antibody raised against amino acids 333-432 of Cbp of human origin.

## PRODUCT

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

## 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.

## APPLICATIONS

Cbp (H-100) is recommended for detection of Cbp of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

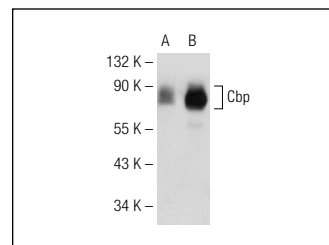
Cbp (H-100) is also recommended for detection of Cbp in additional species, including equine.

Suitable for use as control antibody for Cbp siRNA (h): sc-29952, Cbp siRNA (m): sc-29953, Cbp shRNA Plasmid (h): sc-29952-SH, Cbp shRNA Plasmid (m): sc-29953-SH, Cbp shRNA (h) Lentiviral Particles: sc-29952-V and Cbp shRNA (m) Lentiviral Particles: sc-29953-V.

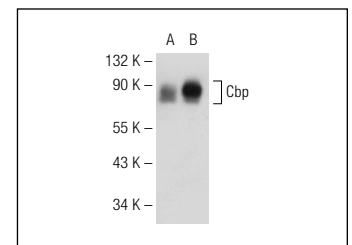
Molecular Weight of Cbp: 80-90 kDa.

Positive Controls: Cbp (h): 293T Lysate: sc-177032, HeLa whole cell lysate: sc-2200 or A-431 whole cell lysate: sc-2201.

## DATA



Cbp (H-100): sc-25748. Western blot analysis of Cbp expression in non-transfected: sc-117752 (A) and human Cbp transfected: sc-177032 (B) 293T whole cell lysates.



Cbp (H-100): sc-25748. Western blot analysis of Cbp expression in non-transfected: sc-117752 (A) and human Cbp transfected: sc-177033 (B) 293T whole cell lysates.

## SELECT PRODUCT CITATIONS

1. Li, F.J., et al. 2005. A rapid translocation of CD45RO but not CD45RA to lipid rafts in IL-6-induced proliferation in myeloma. *Blood* 105: 3295-3392.
2. Kato, N., et al. 2006. Flotillin-1 regulates IgE receptor-mediated signaling in rat basophilic leukemia (RBL-2H3) cells. *J. Immunol.* 177: 147-154.
3. Audard, V., et al. 2010. Occurrence of minimal change nephrotic syndrome in classical Hodgkin lymphoma is closely related to the induction of c-Mip in Hodgkin-Reed Sternberg cells and podocytes. *Blood* 115: 3756-3762.
4. Solstad, T., et al. 2010. Quantitative proteome analysis of detergent-resistant membranes identifies the differential regulation of protein kinase C isoforms in apoptotic T cells. *Proteomics* 10: 2758-2768.

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Try **Cbp (G-8): sc-365387** or **Cbp (49): sc-293026**, our highly recommended monoclonal alternatives to Cbp (H-100).