

# CacyBP (D-8): sc-166195

## BACKGROUND

CacyBP (calcyclin-binding protein, SIAH-interacting protein) is a 228 amino acid protein encoded by the human gene CACYBP. CacyBP is primarily a nuclear protein that contains one CS domain and one SGS domain. CacyBP is believed to be involved in calcium-dependent ubiquitination and subsequent proteosomal degradation of target proteins. It most likely serves as a molecular bridge in ubiquitin E3 complexes. It also participates in the ubiquitin-mediated degradation of  $\beta$ -catenin. CacyBP is thought to be a potential inhibitor of cell growth and invasion in the gastric cancer cell through its effects on  $\beta$ -catenin protein expression and transcriptional activation of TCF/LEF.

## REFERENCES

- Hildebrandt, B., et al. 2007. Differential gene expression in peripheral blood lymphocytes of cancer patients treated with whole body hyperthermia and chemotherapy: a pilot study. *Int. J. Hyperthermia* 22: 625-635.
- Sun, S., et al. 2007. Overexpressed CacyBP/SIP leads to the suppression of growth in renal cell carcinoma. *Biochem. Biophys. Res. Commun.* 356: 864-871.
- Mei, Y., et al. 2007. SIAH-1S, a novel splice variant of SIAH-1 (seven in absentia homolog), counteracts SIAH-1-mediated downregulation of  $\beta$ -catenin. *Oncogene* 26: 6319-6331.
- Herington, J.L., et al. 2007.  $\beta$ -catenin (CTNNB) in the mouse uterus during decidualization and the potential role of two pathways in regulating its degradation. *J. Histochem. Cytochem.* 55: 963-974.
- Liang, J., et al. 2007. Differential expression of calcium-related genes in gastric cancer cells transfected with cellular prion protein. *Biochem. Cell Biol.* 85: 375-383.
- Schneider, G., et al. 2007. CacyBP/SIP interacts with Tubulin in neuroblastoma NB2a cells and induces formation of globular Tubulin assemblies. *Biochim. Biophys. Acta* 1773: 1628-1636.
- Ning, X., et al. 2008. Calcyclin-binding protein inhibits proliferation, tumorigenicity, and invasion of gastric cancer. *Mol. Cancer Res.* 5: 1254-1262.

## CHROMOSOMAL LOCATION

Genetic locus: CACYBP (human) mapping to 1q25.1; Cacybp (mouse) mapping to 1 H2.1.

## SOURCE

CacyBP (D-8) is a mouse monoclonal antibody raised against amino acids 1-228 representing full length CacyBP of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2a</sub> kappa light chain 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.

## APPLICATIONS

CacyBP (D-8) is recommended for detection of CacyBP of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

Suitable for use as control antibody for CacyBP siRNA (h): sc-88504, CacyBP siRNA (m): sc-77341, CacyBP shRNA Plasmid (h): sc-88504-SH, CacyBP shRNA Plasmid (m): sc-77341-SH, CacyBP shRNA (h) Lentiviral Particles: sc-88504-V and CacyBP shRNA (m) Lentiviral Particles: sc-77341-V.

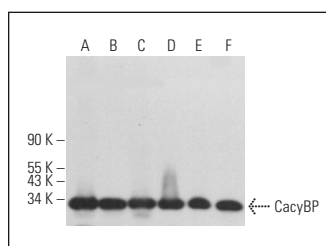
Molecular Weight of CacyBP: 26 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Neuro-2A whole cell lysate: sc-364185 or NIH/3T3 whole cell lysate: sc-2210.

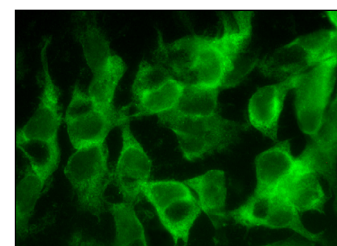
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



CacyBP (D-8): sc-166195. Western blot analysis of CacyBP expression in HeLa (A), ZR-75-1 (B), RT-4 (C), NIH/3T3 (D) and Neuro-2A (E) whole cell lysates and rat testis tissue extract (F).



CacyBP (D-8): sc-166195. Immunofluorescence staining of formalin-fixed Hep G2 cells showing cytoplasmic localization.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.