

CacyBP (H-1): sc-166455

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 β -catenin. CacyBP is thought to be a potential inhibitor of cell growth and invasion in the gastric cancer cell through its effects on β -catenin protein expression and transcriptional activation of TCF/LEF.

REFERENCES

- Hildebrandt, B., et al. 2006. 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 β -catenin. *Oncogene* 26: 6319-6331.
- Herington, J.L., et al. 2007. β -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.

CHROMOSOMAL LOCATION

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

SOURCE

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

PRODUCT

Each vial contains 200 μ g IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CacyBP (H-1) is available conjugated to agarose (sc-166455 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166455 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166455 PE), fluorescein (sc-166455 FITC), Alexa Fluor® 488 (sc-166455 AF488), Alexa Fluor® 546 (sc-166455 AF546), Alexa Fluor® 594 (sc-166455 AF594) or Alexa Fluor® 647 (sc-166455 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166455 AF680) or Alexa Fluor® 790 (sc-166455 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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RESEARCH USE

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

APPLICATIONS

CacyBP (H-1) 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 μ g per 100-500 μ 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.

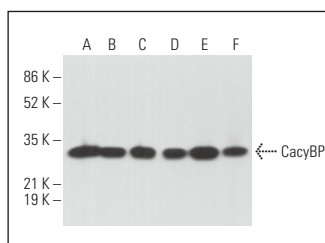
Molecular Weight of CacyBP: 26 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, HeLa whole cell lysate: sc-2200 or Hep G2 cell lysate: sc-2227.

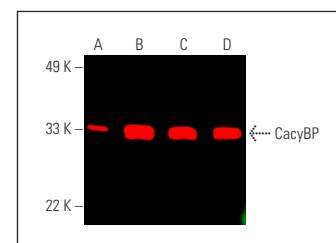
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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 κ BP-FITC: sc-516140 or m-IgG κ 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 (H-1): sc-166455. Western blot analysis of CacyBP expression in HeLa (A), COLO 205 (B), MCF7 (C), A-431 (D), Jurkat (E) and Hep G2 (F) whole cell lysates. Detection reagent used: m-IgG κ BP-HRP: sc-516102.



CacyBP (H-1): sc-166455. Near-infrared western blot analysis of CacyBP expression in WI-38 (A), HeLa (B), COLO 320DM (C) and MCF7 (D) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgG κ BP-CFL 790: sc-516181.

SELECT PRODUCT CITATIONS

- Luo, Z.Y., et al. 2023. Ubiquitin ligase Rndp1 controls autophagy-associated acrosome biogenesis and mitochondrial arrangement during spermiogenesis. *Cells* 12: 2211.

STORAGE

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