SANTA CRUZ BIOTECHNOLOGY, INC.

CacyBP (A-10): sc-166163

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

1. 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.
2. 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.

CHROMOSOMAL LOCATION

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

SOURCE

CacyBP (A-10) is a mouse monoclonal antibody raised against amino acids 1-228 representing full length CacyBP of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

CacyBP (A-10) 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 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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.

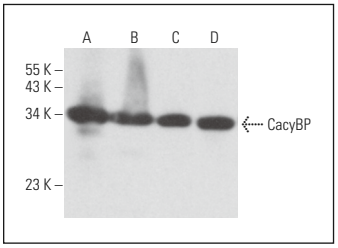
Molecular Weight of CacyBP: 26 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, Neuro-2A whole cell lysate: sc-364185 or RT-4 whole cell lysate: sc-364257.

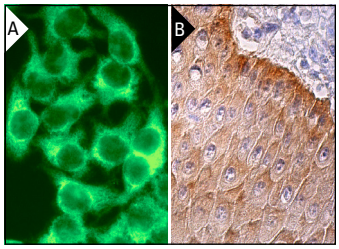
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



CacyBP (A-10): sc-166163. Western blot analysis of CacyBP expression in RT-4 (**A**), NIH/3T3 (**B**) and Neuro-2A (**C**) whole cell lysates and rat testis tissue extract (**D**).



CacyBP (A-10): sc-166163. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human oral mucosa tissue showing cytoplasmic staining of squamous epithelial cells (**B**).

SELECT PRODUCT CITATIONS

1. Rosinska, S. and Filipek, A. 2018. Interaction of CacyBP/SIP with NPM1 and its influence on NPM1 localization and function in oxidative stress. J. Cell. Physiol. 233: 8826-8838.
2. Gopinath, P., et al. 2022. Identification of tumor biomarkers for pathological complete response to neoadjuvant treatment in locally advanced breast cancer. Breast Cancer Res. Treat. 194: 207-220.

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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.