

# CtBP1 (G-6): sc-398945

## BACKGROUND

CtBP1 is a cellular phosphoprotein that associates with various proteins and functions as a corepressor of transcription. CtBP1 and the related protein CtBP2 are characterized as C-terminal binding protein of adenovirus E1A, and they preferentially associate with the E1A via a five-amino acid motif, PLDSL, to repress E1A induced oncogenesis and cellular transformation. CtBP1 is expressed from embryo to adult, but CtBP2 is mainly expressed during embryogenesis. During skeletal and T-cell development, CtBP1 and CtBP2 associate with the PLDSL domain of  $\delta$ EF1, a cellular zinc finger-homeodomain protein, and thereby enhances  $\delta$ EF1 induced transcriptional silencing. In addition, CtBP complexes with CtIP, a protein that recognizes distinctly different protein motifs from CtBP. CtIP binds to the BRCT repeats within the breast cancer gene BRCA1 and enables CtBP to influence BRCA1 activity. CtIP/CtBP binding to BRCA1 inhibits the transactivation of the p21 promoter, and it is critical for regulating p21 transcription in response to DNA damage.

## CHROMOSOMAL LOCATION

Genetic locus: CTBP1 (human) mapping to 4p16.3; Ctbp1 (mouse) mapping to 5 B1.

## SOURCE

CtBP1 (G-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 349-369 within an internal region of CtBP1 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.

CtBP1 (G-6) is available conjugated to agarose (sc-398945 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398945 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398945 PE), fluorescein (sc-398945 FITC), Alexa Fluor® 488 (sc-398945 AF488), Alexa Fluor® 546 (sc-398945 AF546), Alexa Fluor® 594 (sc-398945 AF594) or Alexa Fluor® 647 (sc-398945 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398945 AF680) or Alexa Fluor® 790 (sc-398945 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-398945 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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## STORAGE

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

## PROTOCOLS

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

## APPLICATIONS

CtBP1 (G-6) is recommended for detection of CtBP1 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), 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 CtBP1 siRNA (h): sc-35122, CtBP1 siRNA (m): sc-35121, CtBP1 shRNA Plasmid (h): sc-35122-SH, CtBP1 shRNA Plasmid (m): sc-35121-SH, CtBP1 shRNA (h) Lentiviral Particles: sc-35122-V and CtBP1 shRNA (m) Lentiviral Particles: sc-35121-V.

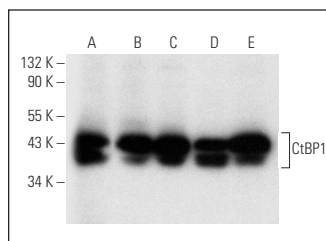
Molecular Weight of CtBP1: 48 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Raji whole cell lysate: sc-364236 or A549 cell lysate: sc-2413.

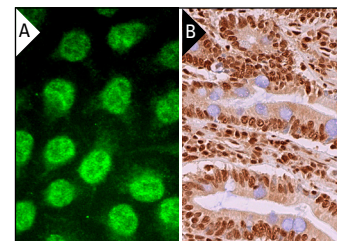
## RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgG $\kappa$  BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



CtBP1 (G-6): sc-398945. Western blot analysis of CtBP1 expression in Jurkat (A), SH-SY5Y (B), Raji (C), A549 (D) and HeLa (E) whole cell lysates.



CtBP1 (G-6): sc-398945. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human small intestine tissue showing nuclear staining of glandular cells (B).

## SELECT PRODUCT CITATIONS

1. Du, K., et al. 2018. MicroRNA485-3p negatively regulates the transcriptional co-repressor CtBP1 to control the oncogenic process in osteosarcoma cells. *Int. J. Biol. Sci.* 14: 1445-1456.

## RESEARCH USE

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