SANTA CRUZ BIOTECHNOLOGY, INC.

CtBP2 (E-16): sc-5966

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 proteins of adenovirus E1A, and they preferentially associate with the E1A via a five-amino acid motif, PLDLS, 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 PLDLSL domain of δEF1, a cellular zinc finger-homeo-domain protein, and thereby enhances δEF1-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: CTBP2 (human) mapping to 10q26.13; Ctbp2 (mouse) mapping to 7 F3.

SOURCE

CtBP2 (E-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of CtBP2 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.

Blocking peptide available for competition studies, sc-5966 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

CtBP2 (E-16) is recommended for detection of CtBP2 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), 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).

CtBP2 (E-16) is also recommended for detection of CtBP2 in additional species, including bovine, porcine and avian.

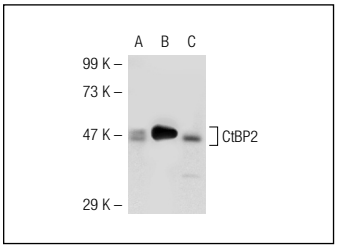
Suitable for use as control antibody for CtBP2 siRNA (h): sc-37767, CtBP2 siRNA (m): sc-37768, CtBP2 shRNA Plasmid (h): sc-37767-SH, CtBP2 shRNA Plasmid (m): sc-37768-SH, CtBP2 shRNA (h) Lentiviral Particles: sc-37767-V and CtBP2 shRNA (m) Lentiviral Particles: sc-37768-V.

Positive Controls: CtBP2 (m): 293T Lysate: sc-126676 or HeLa whole cell lysate: sc-2200.

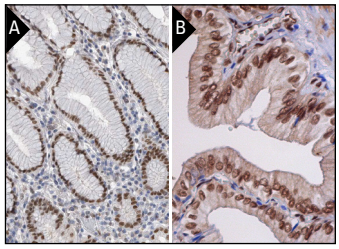
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



CtBP2 (E-16): sc-5966. Western blot analysis of CtBP2 expression in non-transfected 293T: sc-117752 (**A**), mouse CtBP2 transfected 293T: sc-126676 (**B**) and HeLa (**C**) whole cell lysates.



CtBP2 (E-16): sc-5966. Immunoperoxidase staining of formalin fixed, paraffin-embedded human stomach tissue showing nuclear staining of glandular cells. Kindly provided by The Swedish Human Protein Atlas (HPA) program (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder tissue showing nuclear and cytoplasmic staining of glandular cells (**B**).

SELECT PRODUCT CITATIONS

1. Stankovic-Valentin, N., et al. 2006. A L225A substitution in the human tumour suppressor HIC1 abolishes its interaction with the corepressor CtBP. FEBS J. 273: 2879-2890.
2. Liu, K., et al. 2009. Quantitative analysis of the ribbon synapse number of cochlear inner hair cells in C57BL/6J mice using the three-dimensional modeling method. Sci. China, C, Life Sci. 52: 807-812.
3. Chen, L., et al. 2012. Effect of different gentamicin dose on the plasticity of the ribbon synapses in cochlear inner hair cells of C57BL/6J mice. Mol. Neurobiol. 46: 487-494.
4. Jing, Z., et al. 2013. Disruption of the presynaptic cytomatrix protein bassoon degrades ribbon anchorage, multiquantal release, and sound encoding at the hair cell afferent synapse. J. Neurosci. 33: 4456-4467.
5. Wong, A.B., et al. 2014. Developmental refinement of hair cell synapses tightens the coupling of Ca^{2+} influx to exocytosis. EMBO J. 33: 247-264.

RESEARCH USE

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