

CtIP (T-16): sc-5970

BACKGROUND

CtBP1 is a cellular phosphoprotein that associates with various proteins and functions as a co-repressor 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 dEF1, a cellular zinc finger-homeodomain protein, and thereby enhance dEF1-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: RBBP8 (human) mapping to 18q11.2; Rbbp8 (mouse) mapping to 18 A1.

SOURCE

CtIP (T-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of CtIP 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-5970 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CtIP (T-16) is recommended for detection of CtIP 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

CtIP (T-16) is also recommended for detection of CtIP in additional species, including equine, canine, porcine and avian.

Suitable for use as control antibody for CtIP siRNA (h): sc-37765, CtIP siRNA (m): sc-37766, CtIP shRNA Plasmid (h): sc-37765-SH, CtIP shRNA Plasmid (m): sc-37766-SH, CtIP shRNA (h) Lentiviral Particles: sc-37765-V and CtIP shRNA (m) Lentiviral Particles: sc-37766-V.

Molecular Weight of CtIP: 125 kDa.

Positive Controls: T24 cell lysate: sc-2292, Jurkat nuclear extract: sc-2132 or CtIP (m): 293T Lysate: sc-119500.

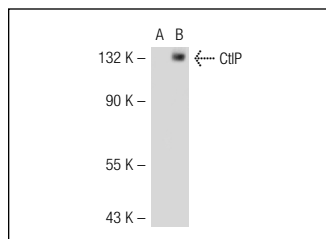
RESEARCH USE

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

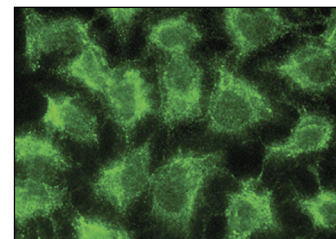
STORAGE

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

DATA



CtIP (T-16): sc-5970. Western blot analysis of CtIP expression in non-transfected: sc-117752 (A) and mouse CtIP transfected: sc-119500 (B) 293T whole cell lysates.



CtIP (T-16): sc-5970. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and nuclear localization.

SELECT PRODUCT CITATIONS

- Foray, N., et al. 2003. A subset of ATM- and ATR-dependent phosphorylation events requires the BRCA1 protein. *EMBO J.* 22: 2860-2871.
- Wu, M., et al. 2007. CtIP silencing as a novel mechanism of tamoxifen resistance in breast cancer. *Mol. Cancer Res.* 5: 1285-1295.
- Palijan, A., et al. 2009. Ligand-dependent corepressor LCoR is an attenuator of progesterone-regulated gene expression. *J. Biol. Chem.* 284: 30275-30287.
- Yun, M.H., et al. 2009. CtIP-BRCA1 modulates the choice of DNA double-strand-break repair pathway throughout the cell cycle. *Nature* 459: 460-463.
- Eid, W., et al. 2010. DNA end resection by CtIP and exonuclease 1 prevents genomic instability. *EMBO Rep.* 11: 962-968.
- Coleman, K.A., et al. 2011. The BRCA1-RAP80 complex regulates DNA repair mechanism utilization by restricting end resection. *J. Biol. Chem.* 286: 13669-13680.

PROTOCOLS

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



Try **CtIP (D-4): sc-271339** or **CtIP (F-2): sc-28324**, our highly recommended monoclonal alternatives to CtIP (T-16).