

Rabbit CTBP1 Polyclonal Antibody | anti-CTBP1 antibody

CTBP1 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA326334	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

CTBP1; Polyclonal Antibody; CTBP1 Antibody; BARS; brefeldin A-ribosylated substrate; C terminal binding protein 1; C-terminal-binding protein 1; CTBP; CtBP1; CTBP1_HUMAN; MGC104684; anti-CTBP1 antibody

PRODUCT SPECIFICATIONS

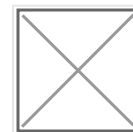
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	CTBP1 antibody detects endogenous levels of total CTBP1
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	429
Applicable Applications for anti-CTBP1 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human CTBP1
Subcellular Location	Cytoplasm. Nucleus.
Tissue Specificity	Expressed in germinal center B-cells.
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



WB (Western Blot)

Western blot analysis of HeLa whole cell lysates, using CTBP1 Antibody. The lane on the left is treated with the antigen-specific peptide.



IF (Immunofluorescence)

AAA326334 staining HeLa cells by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody, diluted at 1/600, was used as secondary antibody.



IHC (Immunohistochemistry)

AAA326334 at 1/100 staining Rat kidney tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

ADDITIONAL INFORMATION

Related Product Information for anti-CTBP1 antibody

Description: CtBP1 (C-terminal binding protein 1) was first recognized as a cellular factor that interacts with the C-terminal portion of adenovirus E1A, a protein involved in the transcriptional regulation of key cellular genes (1). CtBP1 is able to regulate gene activity through its intrinsic dehydrogenase activity (2, 3) and by interacting with Polycomb Group (PcG) proteins during development (4). Along with its homologue, CtBP2, it acts as a transcriptional corepressor of zinc-finger homeodomain factor deltaEF1 to regulate a wide range of cellular processes through transrepression mechanisms (5). Through its direct interaction with PRDM16, CtBP1 has been shown to be involved in brown adipose tissue differentiation by mediating the repression of white fat genes and directing differentiation toward the brown fat gene program (6). CtBP1 also plays a role in lipid metabolic pathways and membrane fission by regulating the fission machinery operating Golgi tubular networks (7). CtBP1 has recently been shown to repress transcription of BRCA1 via a redox regulated mechanism (8). Furthermore, it is thought that downregulation of BRCA1 and E-cadherin in invasive ductal breast carcinoma correlates directly with activation of CtBP1 (9).

Function: Corepressor targeting diverse transcription regulators such as GLIS2 or BCL6. Has dehydrogenase activity. Involved in controlling the equilibrium between tubular and stacked structures in the Golgi complex. Functions in brown adipose tissue (BAT) differentiation.

Subunit Structure: Homo- or heterodimer. Heterodimer with CTBP2. Interacts with PRDM16; the interaction represses white adipose tissue (WAT)-specific genes expression. Interacts with GLIS2, FOXP2, HDAC4, HDAC5, HDAC9 and ZNF217. Interacts with adenovirus E1A protein (via its C-terminus); the interaction disrupts the interaction of CTBP1 with RBBP8. Interacts with Epstein-Barr virus EBNA3 and EBNA6. Interacts with ELK3 (via its PXDLS motif). Interacts with RBBP8 (via its PXDLS motif); the interaction is disrupted by binding to adenovirus E1A. Interacts with FOXP1, HIPK2, PNN, NRIP1, MECOM, ZFHX1B and WIZ. Interacts with ZNF366 (via PXDLS motif) (PubMed:16393996, PubMed:17085477). Interaction with SATB1 (non-acetylated form); the interaction stabilizes its attachment to DNA and promotes transcription repression. Interacts with BCL6; the interaction is required for BCL6 transcriptional autoinhibition and inhibition of some BCL6 target genes. Interacts with IKZF4 (By similarity). Interacts with human adenovirus 5 E1A protein; this interaction seems to potentiate viral replication (PubMed:23747199). Interacts with MCRIP1 (unphosphorylated form, via the PXDLS motif); competitively inhibiting CTBP-ZEB1 interaction (PubMed:25728771).

Post-translational Modifications: The level of phosphorylation appears to be regulated during the cell cycle. Phosphorylation by HIPK2 on Ser-422 induces proteasomal degradation. ADP-ribosylated; when cells are exposed to brefeldin A. Sumoylation on Lys-428 is promoted by the E3 SUMO-protein ligase CBX4.

Similarity: Belongs to the D-isomer specific 2-hydroxyacid dehydrogenase family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	61743967
NCBI GeneID	1487
NCBI Accession #	NP_001012632.1
NCBI GenBank Nucleotide #	NM_001012614.1
UniProt Accession #	Q13363; Q4W5N3; Q7Z2Q5
Molecular Weight	Observed: 48 kDa Predicted: 48 kDa
NCBI Official Full Name	C-terminal-binding protein 1 isoform 2
NCBI Official Synonym Full Names	C-terminal binding protein 1
NCBI Official Symbol	CTBP1

NCBI Official Synonym Symbols	BARS; HADDTS
NCBI Protein Information	C-terminal-binding protein 1
UniProt Protein Name	C-terminal-binding protein 1
UniProt Gene Name	CTBP1
UniProt Synonym Gene Names	CTBP; CtBP1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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