Revision 1

Store at -20C

#13256

CtBP2 Antibody

Cell Signaling TECHNOLOGY®

Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H M R Mk	Endogenous	47	Rabbit	#P56545	1488

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

Specificity/Sensitivity

CtBP2 Antibody recognizes endogenous levels of total CtBP2 protein. This antibody does not cross-react with the CtBP1 protein.

Species predicted to react based on 100% sequence homology

Bovine, Dog, Guinea Pig

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human CtBP2 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

CtBP2 (carboxy-terminal binding protein-2) and its homolog CtBP1 are transcriptional co-repressors originally identified as proteins that bind the carboxy-terminus of the human adenovirus E1A protein (1-3). CtBP proteins are thought to play important roles in regulating various developmental pathways because deletion of CtBP2 leads to embryonic lethality at E10.5 and is correlated with axial patterning defects (4). CtBP proteins regulate various oncogenic signaling pathways as promoters of epithelial-mesenchymal transition, apoptosis antagonists, and tumor suppressor genes repressors (1,5). The CtBP protein transcription co-repression activity results from interactions with numerous transcription factors and chromatin modulators, including the polycomb group proteins (1,6,7). Depending on the context, CtBP proteins interact with a short amino acid sequence motif (PXDLS) to mediate repression of target genes through both histone deacetylase-dependent and independent mechanisms (6,8,9). CtBP proteins display a high sequence homology to the bacterial D-isomer-specific 2-hydroxyacid dehydrogenase enzymes. Research studies indicate that nuclear NADH levels regulate CtBP transcription repression activities, as NADH binding is required for CtBP2 homodimerization and transcription co-repressor activity (6,9-11).

Background References

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3. Katsanis, N. and Fisher, E.M. (1998) *Genomics* 47, 294-9.
4. Hildebrand, J.D. and Soriano, P. (2002) *Mol Cell Biol* 22, 5296-307.
5. Battaglia, S. et al. (2010) *Int J Cancer* 126, 2511-9.
6. Chinnadurai, G. (2002) *Mol Cell* 9, 213-24.
7. Sewalt, R.G. et al. (1999) *Mol Cell Biol* 19, 777-87.
8. Molloy, D.P. et al. (1998) *J Biol Chem* 273, 20867-76.
9. Schaeper, U. et al. (1995) *Proc Natl Acad Sci U S A* 92, 10467-71.
10. Kumar, V. et al. (2002) *Mol Cell* 10, 857-69.
11. Thio, S.S. et al. (2004) *Nucleic Acids Res* 32, 1836-47.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat **Mk:** Monkey

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