Revision 5

Store at -20C

#8684

CtBP1 (D2D6) Rabbit mAb

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP, IHC-P, IF-IC	H M Mk	Endogenous	47	Rabbit IgG	#Q13363	1487

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:100
Immunohistochemistry (Paraffin)	1:100
Immunofluorescence (Immunocytochemistry)	1:200

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

For a carrier free (BSA and azide free) version of this product see product #95351.

Specificity/Sensitivity

CtBP1 (D2D6) Rabbit mAb recognizes endogenous levels of total CtBP1 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human CtBP1 protein.

Background

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).

Background References

1. Schaeper, U. et al. (1995) *Proc Natl Acad Sci USA* 92, 10467-71.
2. Balasubramanian, P. et al. (2003) *FEBS Lett* 537, 157-60.
3. Kumar, V. et al. (2002) *Mol Cell* 10, 857-69.
4. Sewalt, R.G. et al. (1999) *Mol Cell Biol* 19, 777-87.
5. Furusawa, T. et al. (1999) *Mol Cell Biol* 19, 8581-90.
6. Kajimura, S. et al. (2008) *Genes Dev* 22, 1397-409.
7. Cassens, U. et al. (1999) *Transfus Med* 9, 311-20.
8. Deng, Y. et al. (2010) *Oncogene* 29, 6603-8.
9. Deng, Y. et al. (2011) *Mol Carcinog*, Epub ahead of print.

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 **IHC-P:** Immunohistochemistry (Paraffin) **IF-IC:** Immunofluorescence (Immunocytochemistry)
Cross-Reactivity Key	**H:** Human **M:** Mouse **Mk:** Monkey
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