

#62184 Store at -20°C

CBFβ (D4N2N) Rabbit mAb**Cell Signaling**
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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: WB, ChIP	Reactivity: H M R Mk	Sensitivity: Endogenous	MW (kDa): 22	Source/Isotype: Rabbit IgG	UniProt ID: #Q13951	Entrez-Gene Id: 865
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Product Usage Information

For optimal ChIP results, use 10 µl of antibody and 10 µg of chromatin (approximately 4 x 10⁶ cells) per IP. This antibody has been validated using SimpleChIP® Enzymatic Chromatin IP Kits.

Application	Dilution
Western Blotting	1:1000
Chromatin IP	1:50

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.

Specificity / Sensitivity

CBFβ (D4N2N) Rabbit mAb recognizes endogenous levels of total CBFβ protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Asn14 of human CBFβ protein.

Background

Core-binding factor subunit β (CBFβ) is a non-DNA binding transcription factor subunit that associates with and regulates the DNA binding activity of RUNX1, RUNX2, and RUNX3 (1). CBFβ is ubiquitously expressed and has been implicated in a variety of developmental processes including hematopoiesis, T cell development, chondrogenesis, and bone formation (2-7). In addition, investigators have identified CBFβ as one of the most frequently translocated genes in leukemia (8) and research studies have found it to be required for HIV immune evasion (9,10). CBFβ interacts with the viral protein VIF and triggers assembly of a ubiquitin ligase complex that targets the retroviral inhibitor APOBEC3G for degradation (9,10).

Background References

1. Ogawa, E. et al. (1993) *Virology* 194, 314-31.
2. Wang, Q. et al. (1996) *Cell* 87, 697-708.
3. Talebian, L. et al. (2007) *Blood* 109, 11-21.
4. Johnson, K. et al. (2012) *Science* 336, 717-21.
5. Yoshida, C.A. et al. (2002) *Nat Genet* 32, 633-8.
6. Miller, J. et al. (2002) *Nat Genet* 32, 645-9.
7. Kundu, M. et al. (2002) *Nat Genet* 32, 639-44.
8. Goyama, S. and Mulloy, J.C. (2011) *Int J Hematol* 94, 126-33.
9. Jäger, S. et al. (2012) *Nature* 481, 371-5.
10. Zhang, W. et al. (2012) *Nature* 481, 376-9.

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 nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

WB: Western Blotting **ChIP:** Chromatin IP

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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