Revision 1

Store at -20C

#85460

MYST3 (E3P5T) Rabbit Monoclonal Antibody

Cell Signaling TECHNOLOGY®

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

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Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP, ChIP	H	Endogenous	320	Rabbit IgG	#Q92794	7994

Product Usage Information

For optimal ChIP results, use 10 µL of antibody and 10 µg of chromatin (approximately 4 × 10^6 cells) per IP. This antibody has been validated using SimpleChIP® Enzymatic Chromatin IP Kits.

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:50
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

MYST3 (E3P5T) Rabbit Monoclonal Antibody recognizes endogenous levels of total MYST3 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro927 of human MYST3 protein.

Background

MYST3, also known as monocytic leukemia zinc finger protein (MOZ) and lysine acetyltransferase 6A (KAT6A), is a member of the MYST (MOZ, YBF2, SAS2, and TIP60) family of histone acetyltransferases (1,2). First discovered as a fusion partner of CREBBP in acute myeloid leukemia, MYST3 contributes to *Hox* gene expression and segment identity during development (3-6). MYST3 forms an evolutionarily conserved complex with ING5, EAF6, and BRD1 and has been shown to be a coactivator for many different transcription factors, including PU.1, NRF2, and Runx family members (7-9). MYST3 is critical in hematopoietic stem cell maintenance, where it acts synergistically with polycomb member BMI1 (10). Inhibitors of MYST3 are being investigated for therapeutic value as they can induce senescence and decrease tumor growth (11).

Background References

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3. Borrow, J. et al. (1996) *Nat Genet* 14, 33-41.
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5. Crump, J.G. et al. (2006) *Development* 133, 2661-9.
6. Voss, A.K. et al. (2009) *Dev Cell* 17, 674-86.
7. Katsumoto, T. et al. (2006) *Genes Dev* 20, 1321-30.
8. Ohta, K. et al. (2007) *Biochem J* 402, 559-66.
9. Bristow, C.A. and Shore, P. (2003) *Nucleic Acids Res* 31, 2735-44.
10. Sheikh, B.N. et al. (2017) *Exp Hematol* 47, 83-97.
11. Baell, J.B. et al. (2018) *Nature* 560, 253-7.

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

W: Western Blotting **IP:** Immunoprecipitation **ChIP:** Chromatin IP

Cross-Reactivity Key

H: Human

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