

MAML1 (D3K7B) Rabbit mAb



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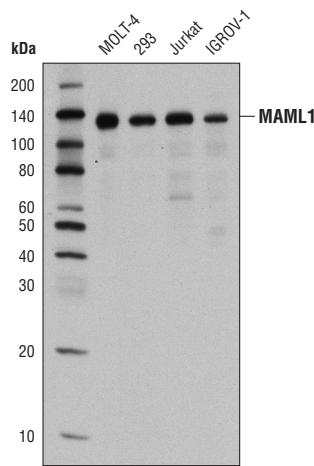
rev. 08/20/18

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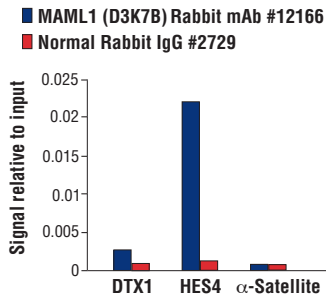
Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IP, ChIP, ChIP-seq Endogenous	H, M, R	130 kDa	Rabbit IgG**

Background: Mastermind-like (MAML) family of proteins are homologs of *Drosophila* Mastermind. The family is composed of three members in mammals: MAML1, MAML2, and MAML3 (1,2). MAML proteins form complexes with the intracellular domain of Notch (ICN) and the transcription factor CSL (RBP-Jκ) to regulate Notch target gene expression (3-5). MAML1 also interacts with myocyte enhancer factor 2C (MEF2C) to regulate myogenesis (6). MAML2 is frequently found to be fused with Mucoepidermoid carcinoma translocated gene 1 (MECT1, also known as WAMTP1 or TORC1) in patients with mucoepidermoid carcinomas and Warthin's tumors (7). **Specificity/Sensitivity:** MAML1 (D3K7B) Rabbit mAb recognizes endogenous levels of total MAML1 protein. This antibody does not detect MAML2 or MAML3.

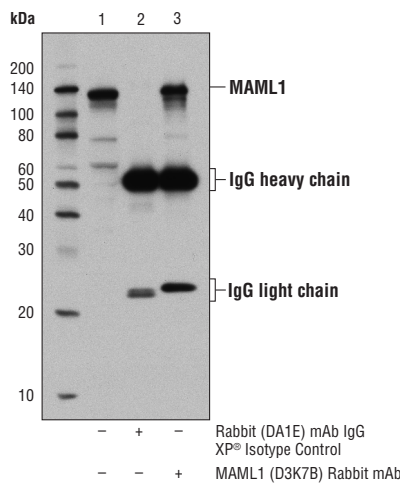
Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Asp269 of human MAML1 protein.



Western blot analysis of extracts from various cell lines using MAML1 (D3K7B) Rabbit mAb.



Chromatin immunoprecipitations were performed with cross-linked chromatin from CUTLL1 cells cultured in media with γ -secretase inhibitor (1 μ M) for 3 days and then washed and cultured in fresh media for 3 hr and either MAML1 (D3K7B) Rabbit mAb or Normal Rabbit IgG #2729 using SimpleChIP® Plus Enzymatic Chromatin IP Kit (Magnetic Beads) #9005. The enriched DNA was quantified by real-time PCR using human DTX1 intron 3 primers, SimpleChIP® Human HES4 Promoter Primers #7273, and SimpleChIP® Human α Satellite Repeat Primers #4486. The amount of immunoprecipitated DNA in each sample is represented as signal relative to the total amount of input chromatin, which is equivalent to one.



Immunoprecipitation of MAML1 protein from 293T cell extracts, using Rabbit (DA1E) mAb IgG XP® Isotype Control #3900 (lane 2) or MAML1 (D3K7B) Rabbit mAb (lane 3). Lane 1 is 10% input. Western blot analysis was performed using MAML1 Antibody #4608.

Entrez-Gene ID #9794
Swiss-Prot Acc. #Q92585

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

*Species cross-reactivity is determined by western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunoprecipitation	1:200
Chromatin IP / Chromatin IP-seq	1:100

Optimal ChIP / ChIP-seq conditions: 5 μ l of antibody & 10 μ g of chromatin (4 x 10⁶ cells) per IP. Antibody validated using SimpleChIP® Enzymatic ChIP Kits.

For product specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended complementary products.

Background References:

- (1) Wu, L. et al. (2002) *Mol. Cell Biol.* 22, 7688-7700.
- (2) Lin, S.E. et al. (2002) *J. Biol. Chem.* 277, 50612-50620.
- (3) Kitagawa, M. et al. (2001) *Mol. Cell Biol.* 21, 4337-4346.
- (4) Nam, Y. et al. (2003) *J. Biol. Chem.* 278, 21232-21239.
- (5) Nam, Y. et al. (2006) *Cell* 124, 973-983.
- (6) Shen, H. et al. (2006) *Genes Dev.* 20, 675-688.
- (7) Tonon, G. et al. (2003) *Nat. Genet.* 33, 208-213.

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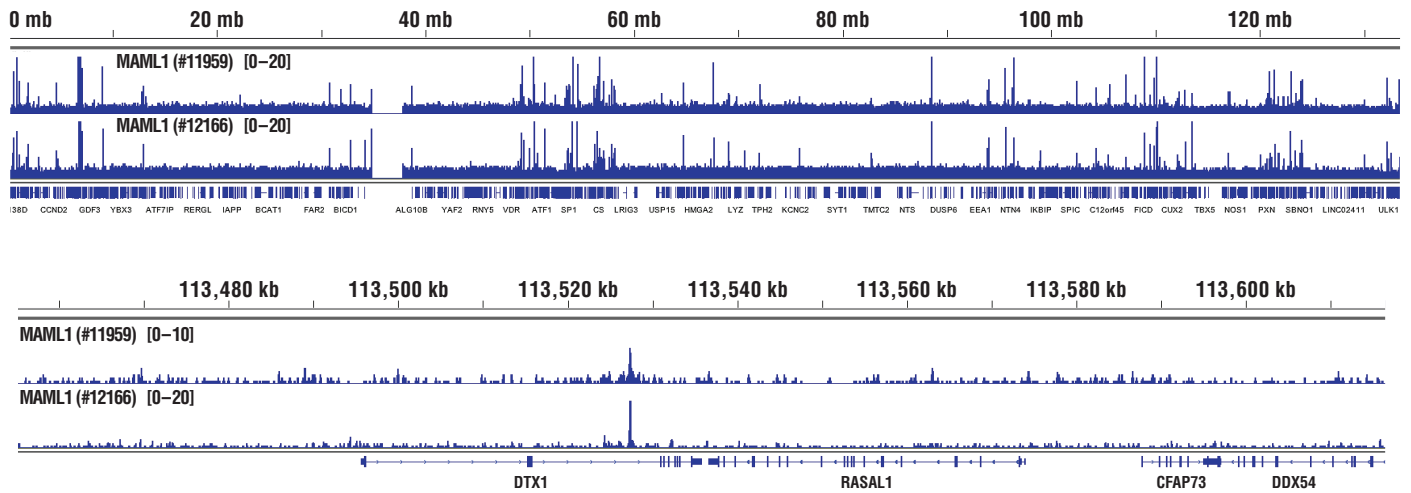
IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA—Peptide

Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey 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 All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.

#12166



Chromatin immunoprecipitations were performed with cross-linked chromatin from CUTLL1 cells cultured in media with γ -secretase inhibitor (1 μ M) for 3 days and then washed and cultured in fresh media for 3 hr and either MAML1 (D3E9) Rabbit mAb #11959 or MAML1 (D3K7B) Rabbit mAb, using SimpleChIP[®] Plus Enzymatic Chromatin IP Kit (Magnetic Beads) #9005. DNA Libraries were prepared using SimpleChIP[®] ChIP-seq DNA Library Prep Kit for Illumina[®] #56795. The figure shows binding across chromosome 12 (upper), including DTX1 (lower), a known target gene of MAML1 (see additional figure containing ChIP-qPCR data).