Revision 1

#90051 Store at -20C

TRIM33 (D7U4F) Rabbit mAb

Cell Signaling TECHNOLOGY®

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP, IHC-P, FC-FP, ChIP	H	Endogenous	150	Rabbit IgG	#Q9UPN9	51592

Product Usage Information

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

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:200
Immunohistochemistry (Paraffin)	1:1000
Flow Cytometry (Fixed/Permeabilized)	1:200
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

TRIM33 (D7U4F) Rabbit mAb recognizes endogenous levels of total TRIM33 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gln609 of human TRIM33 protein.

Background

The transcriptional intermediary factor 1 (TIF1) family represents a group of proteins with multiple histone-binding domains. In humans, this family comprises four proteins, TIF1α/TRIM24, TIF1β/TRIM28/KAP1, TIF1γ/TRIM33/Ectodermin, and TIF1δ/TRIM66, which are characterized by an amino-terminal tripartite motif (TRIM) domain consisting of a RING domain, two B boxes, a coiled-coil domain, and a carboxy-terminal PHD finger and bromodomain (1). Despite their similar overall structure, these proteins have diverse roles in transcriptional regulation. TIF1α functions as a ligand-dependent nuclear receptor coregulator and more recently has been implicated in regulating p53 stability (2). TIF1β is an intrinsic component of the N-CoR1 corepressor complex and the NuRD nucleosome-remodeling complex (3) and functions as a corepressor for Kruppel-associated box (KRAB) zinc-finger transcription factors (4). Furthermore, TIF1β promotes heterochromatin-mediated gene silencing formation by serving as a cofactor for heterochromatin protein HP1 (5). TIF1δ expression is restricted to the testis and has been shown to interact with HP1γ (6).

Background References

1. Meroni, G. and Diez-Roux, G. (2005) *Bioessays* 27, 1147-57.
2. Jain, A.K. and Barton, M.C. (2009) *Cell Cycle* 8, 3668-74.
3. Underhill, C. et al. (2000) *J Biol Chem* 275, 40463-70.
4. Schultz, D.C. et al. (2001) *Genes Dev* 15, 428-43.
5. Groner, A.C. et al. (2010) *PLoS Genet* 6, e1000869.
6. Khetchoumian, K. et al. (2004) *J Biol Chem* 279, 48329-41.

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 **IP:** Immunoprecipitation **IHC-P:** Immunohistochemistry (Paraffin)
FC-FP: Flow Cytometry (Fixed/Permeabilized) **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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Limited Uses