

RTF1 (D7V3W) Rabbit mAb

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M R Mk	Endogenous	100	Rabbit IgG	#Q92541	23168

Product Usage Information**Application**

Western Blotting

Dilution

1:1000

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

RTF1 (D7V3W) Rabbit mAb recognizes endogenous levels of total RTF1 protein.

Species predicted to react based on 100% sequence homology

Hamster, Bovine, *S. cerevisiae*

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Leu364 of human RTF1 protein.

Background

The PAF (RNA polymerase II (RNAPII) associated factor) complex was initially identified in yeast and is comprised of subunits PAF1, Leo1, Ctr9, Cdc73, RTF1 and Ski8 (1,2). The PAF complex plays an important role in transcription initiation and elongation by RNAPII by regulating the establishment of proper histone modifications such as histone H2B ubiquitination and the recruitment of the histone chaperone FACT (facilitates chromatin transcription) (3-5). The PAF complex also plays a role in mRNA processing and maturation by interacting with and recruiting the cleavage and polyadenylation specificity factor and cleavage stimulation factor complexes via the Cdc73 subunit (6,7). In addition, the Ski8 subunit of the PAF complex is part of the hSKI complex that regulates RNA surveillance, suggesting an important function of the complex in coordinating events associated with proper RNA maturation during transcription (1,5).

The RNA polymerase-associated protein RTF1 and the tumor suppressor Cdc73 are responsible for recruitment of the PAF complex to active genes within chromatin (8). The RTF1 protein contains a pair of functional domains: the central plus 3 domain has been identified as a region of ssDNA binding (9), and a smaller histone modification domain (HMD) appears to promote methylation of the histone H3 and ubiquitination of histone H2B (8,10).

Background References

1. Jaehning, J.A. (2010) *Biochim Biophys Acta* 1799, 379-88.
2. Chaudhary, K. et al. (2007) *Oncogene* 26, 7499-507.
3. Pavri, R. et al. (2006) *Cell* 125, 703-17.
4. Rozenblatt-Rosen, O. et al. (2005) *Mol Cell Biol* 25, 612-20.
5. Zhu, B. et al. (2005) *Genes Dev* 19, 1668-73.
6. Rozenblatt-Rosen, O. et al. (2009) *Proc Natl Acad Sci U S A* 106, 755-60.
7. Farber, L.J. et al. (2010) *Mol Carcinog* 49, 215-23.
8. Warner, M.H. et al. (2007) *Mol Cell Biol* 27, 6103-15.
9. de Jong, R.N. et al. (2008) *Structure* 16, 149-59.
10. Piro, A.S. et al. (2012) *Proc Natl Acad Sci U S A* 109, 10837-42.

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

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat **Mk:** Monkey

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