

**#12781** Store at -20C**TAF1 (D6J8B) Rabbit mAb****Cell Signaling**  
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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	H	Endogenous	250	Rabbit IgG	#P21675	6872

**Product Usage Information****Application**Western Blotting  
Immunoprecipitation**Dilution**1:1000  
1:100**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**

TAF1 (D6J8B) Rabbit mAb recognizes endogenous levels of total TAF1 protein. This antibody also cross-reacts with protein of unknown origin at 45 kDa.

**Source / Purification**

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ala1679 of human TAF1 protein.

**Background**

TATA-binding protein (TBP) is a ubiquitously expressed nuclear protein that functions at the core of the general transcription factor protein complex TFIID (1-3). TFIID, which contains TBP and 13 TBP-associated factors (TAFs), contributes to the formation of the transcription pre-initiation complex, an assembly of multiple protein complexes (TFIIA, TFIIB, TFIIE, TFIIIF, TFIIF, TFIIF, and RNA polymerase II) that bind to a gene promoter during the initiation of transcription (1-3). Once the pre-initiation complex is formed, RNA polymerase II becomes competent for elongation and transcribes the body of a gene. TBP functions in the recruitment of TFIID by binding to the TATA-box sequence found approximately 25 base pairs upstream of the transcription start site of many protein-coding genes. In addition, many transcriptional activator proteins interact with TBP and various TAF proteins to facilitate recruitment of TFIID and formation of the pre-initiation complex.

TBP-associated factor 1 (TAF1) is the largest subunit of TFIID and possesses multiple enzymatic activities including a protein kinase activity (4), a histone acetyltransferase activity (5), and both E1 and E2 ubiquitin-activating and conjugating activities (6,7). The target proteins of these enzymatic activities include both histones and non-histones and play a critical role in regulating transcription activation (3). In addition, TAF1 contains two tandem bromodomains that recognize acetylated histone H3 and histone H4 and are thought to promote the recruitment and association of TFIID at target promoters post activator recruitment of coactivators for gene expression (8,9).

**Background References**

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2. Berk, A.J. (2000) *Cell* 103, 5-8.
3. Thomas, M.C. and Chiang, C.M. (2006) *Crit Rev Biochem Mol Biol* 41, 105-78.
4. Dikstein, R. et al. (1996) *Cell* 84, 781-90.
5. Mizzen, C.A. et al. (1996) *Cell* 87, 1261-70.
6. Pham, A.D. and Sauer, F. (2000) *Science* 289, 2357-60.
7. Boutet, S.C. et al. (2010) *Mol Cell* 40, 749-61.
8. Jacobson, R.H. et al. (2000) *Science* 288, 1422-5.
9. Kanno, T. et al. (2004) *Mol Cell* 13, 33-43.

**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**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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