Revision 1

Store at -20C

#12781

# TAF1 (D6J8B) Rabbit mAb

Cell Signaling TECHNOLOGY®

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

**Support:** 877-678-TECH (8324)

**Web:** info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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

| Applications: | Reactivity: | Sensitivity: | MW (kDa): | Source/Isotype: | UniProt ID: | Entrez-Gene Id: |
|---|---|---|---|---|---|---|
| W, IP | H | Endogenous | 250 | Rabbit IgG | #P21675 | 6872 |

## Product Usage Information

| Application | Dilution |
|---|---|
| Western Blotting | 1:1000 |
| Immunoprecipitation | 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, TFIIF, TFIIH, 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

1. Goodrich, J.A. and Tjian, R. (1994) *Curr Opin Cell Biol* 6, 403-9.
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

**W:** Western Blotting **IP:** Immunoprecipitation

## Cross-Reactivity Key

**H:** Human

## Trademarks and Patents

All other trademarks are the property of their respective owners. Visit cellsignal.com/trademarks for more information.

## Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.