Datasheet for 600-401-995

TAF1 Antibody

Overview

Description:	Anti-Transcription Initiation Factor TFIID Subunit 1 (TAF1) (RABBIT) Antibody - 600-401-995
Item No.:	600-401-995
Size:	100 µg
Applications:	ChIP, ELISA, IHC, WB
Reactivity:	Human, Mouse
Host Species:	Rabbit

Product Details

Background:	Anti-TAF1 antibody is designed, produced, and validated as part of a collaboration between Rockland and the National Cancer Institute (NCI) and is suitable for Cancer, Immunology and Nuclear Signaling research. Transcription Initiation Factor TFIID Subunit 1 (TAF1) is the largest component and core scaffold of the TFIID basal transcription factor complex, which also includes TATA-binding protein (TBP) and a variety of TBP-associated factors. TFIID nucleates the formation of transcription pre-initiation complexes and plays a key role in the regulation of gene expression by RNA polymerase II. TAF1 possesses DNA-binding activity and also contains novel N- and C-terminal Ser/Thr kinase domains which can auto-phosphorylate or trans-phosphorylate other transcription factors. For example, TAF1 interacts with the C-terminus of TP53 and phosphorylates the T55 residue, leading to MDM2-mediated degradation of TP53. TAF1 also catalyzes Ser phosphorylation of general transcription factor IIA (GTF2A1) and IIF (GTF2F1). The retinoblastoma tumor suppressor protein, RB1, interacts with the N-terminal domain of TAF1 and inhibits its intrinsic kinase activity. TAF1 is essential for progression through the G1 phase of the cell cycle and has been reported to be indispensable for expression of 18% of mammalian genes.
Synonyms:	Rabbit anti-TAF1 antibody, rabbit anti-Anti-Transcription Initiation Factor TFIID Subunit 1 antibody, TAF-1, TAF 1, Cell cycle gene 1 protein, TBP-associated factor 250 kDa, TAFII-250
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	TAF1
Reactivity:	Human, Mouse
Immunogen Type:	Conjugated Peptide
Immunogen:	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to amino acids near the carboxyl terminus of human TAF1.
Purity/Specificity:	This affinity purified antibody is directed against human TAF1 protein. The product was affinity purified from monospecific antiserum by immunoaffinity chromatography. A BLAST analysis was used to suggest cross-reactivity with TAF1 protein from human, mouse and rat based on 100% homology with the immunizing sequence. Reactivity against homologues from other sources is not known.
Relevant Links:	• UniProtKB - P21675 • NCBI - NP_001273003.1 • GeneID - 6872

Application Details

Tested Applications:	ChIP, ELISA, IHC, WB
Application Note:	This affinity purified antibody has been tested for use in ELISA, Immunohistochemistry, ChIP, and western blotting. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 213 kDa in size corresponding to TAF1 protein by western blotting in the appropriate cell lysate or extract.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ChIP:	User Optimized
ELISA:	1:150,000 - 1:300,000
IHC:	10µg/ml
IP:	User Optimized
WB:	1:100 - 1:2,000

Formulation

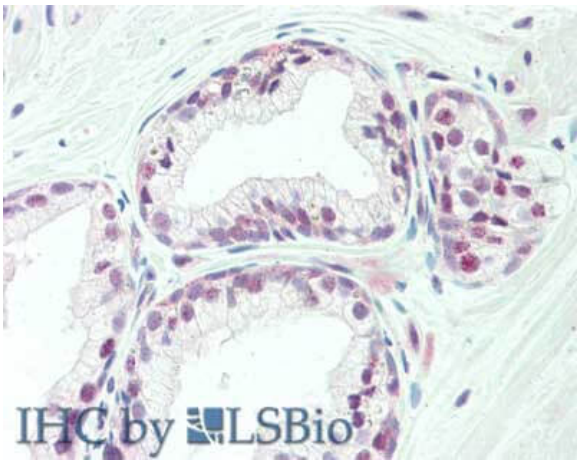
Physical State:	Liquid (sterile filtered)
Concentration:	1.1 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

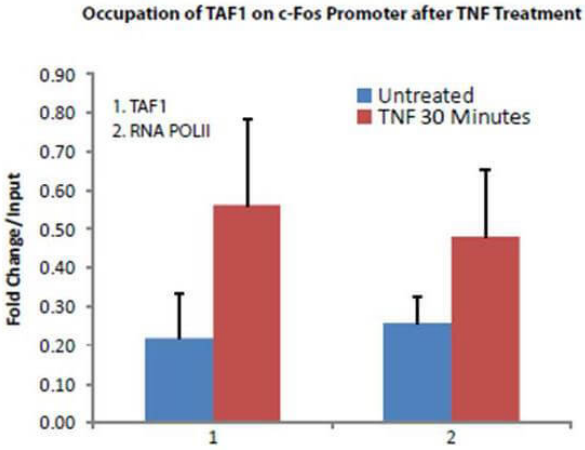
Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

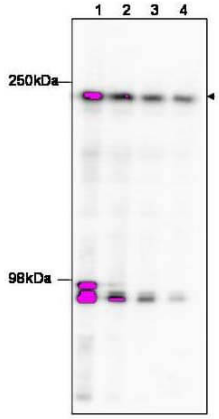
Images



Immunohistochemistry
Immunohistochemistry of rabbit anti-TAF1 antibody. Tissue: prostate. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: Anti-TAF1 at 10 µg/mL for 1 h at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Staining: TAF-1 as precipitated red signal with hematoxylin purple nuclear counterstain.

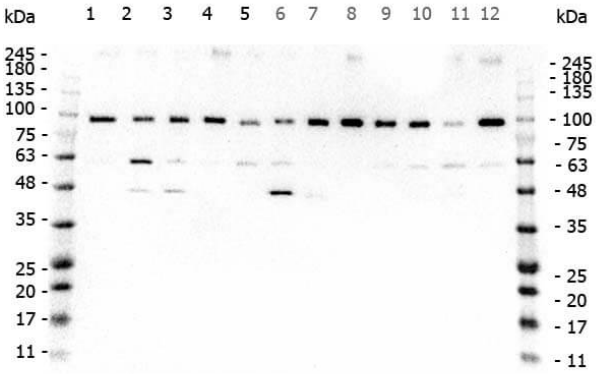


ChIP
Transcription Initiation Factor TFIID Subunit 1 (TAF1) antibody was used to detect TAF1 in treated and untreated HeLa Cells. HeLa cells were treated with TNF alpha and Chromatin was prepared by EZ Magna Chip Kit (Millipore). CHIP was performed on fos promoters using 5 µg of TAF1 antibody from Rockland (P/n 600-401-995) and an RNA PolII antibody. Image with data provided courtesy of Shiraz Mujtaba, Ph.D., Dept. of Structural & Chemical Biology, Mount Sinai School of Medicine.



Western Blot

Western blot using Rockland's affinity purified anti-TAF1 to detect TAF1 in HeLa nuclear extract (arrowhead). The membrane was probed with the primary antibody at dilutions of 1:100 (lane 1), 1:250 (lane 2), 1: 500 (Lane 3 and 1:1,000 (Lane 4). The identity of the bands at ~95 kDa is unknown, but may be degraded TAF1. Personal Communication, Anne Gegonne, CCR-NCI, Bethesda, MD.



Western Blot

Western Blot of Rabbit anti-TAF1 antibody. Marker: Opal Pre-stained ladder (p/n MB-210-0500). Lane 1: HEK293 lysate (p/n W09-000-365). Lane 2: HeLa Lysate (p/n W09-000-363). Lane 3: MCF-7 Lysate (p/n W09-000-360). Lane 4: Jurkat Lysate (p/n W09-000-370). Lane 5: A431 Lysate (p/n W09-000-361). Lane 6: A549 Lysate (p/n W09-001-372). Lane 7: LNCap Lysate (p/n W09-001-GJ9). Lane 8: MOLT-4 Lysate (p/n W09-001-GK2). Lane 9: Ramos Lysate (p/n W09-000-GK4). Lane 10: Raji Lsyate (p/n W09-001-368). Lane 11: A-172 Lysate (p/n W09-001-GL5). Lane 12: NIH/3T3 Lysate (p/n W10-000-358). Load: 35 µg per lane. Primary antibody: TAF1 antibody at 0.2ug/mL overnight at 4C. Secondary antibody: Peroxidase rabbit secondary antibody (p/n 611-103-122) at 1:30,000 for 60 min at RT. Blocking Buffer: 1% Casein-TTBS for 30 min at RT. Predicted/Observed size: 250kDa for TAF1.

References

- Gegonne A et al. The general transcription factor TAF7 is essential for embryonic development but not essential for the survival or differentiation of mature T cells. *Mol Cell Biol.* (2012)

Disclaimer

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