

Anti-Transcription Initiation Factor TFIID Subunit 1 (TAF1) (RABBIT) Antibody TAF1 Antibody

Catalog # ASR5394

Specification

Anti-Transcription Initiation Factor TFIID Subunit 1 (TAF1) (RABBIT) Antibody - Product Information

Host Rabbit

Conjugate Unconjugated Target Species Human

Reactivity Human, Mouse Clonality Polyclonal

Application WB, IHC, E, IP, I, LCI

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.

Liquid (sterile filtered)

0.02 M Potassium Phosphate, 0.15 M

Sodium Chloride, pH 7.2

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.

Preservative 0.01% (w/v) Sodium Azide

Anti-Transcription Initiation Factor TFIID Subunit 1 (TAF1) (RABBIT) Antibody - Additional Information

Gene ID 6872

Physical State

Buffer

Other Names

6872

Purity

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.

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.

Precautions Note

This product is for research use only and is not intended for therapeutic or diagnostic applications.

Anti-Transcription Initiation Factor TFIID Subunit 1 (TAF1) (RABBIT) Antibody - Protein Information

Name TAF1 (HGNC:11535)

Synonyms BA2R, CCG1, CCGS, TAF2A

Function

The TFIID basal transcription factor complex plays a major role in the initiation of RNA polymerase II (Pol II)-dependent transcription (PubMed: 33795473). TFIID recognizes and binds promoters with or without a TATA box via its subunit TBP, a TATA-box-binding protein, and promotes assembly of the pre-initiation complex (PIC) (PubMed:33795473). The TFIID complex consists of TBP and TBP-associated factors (TAFs), including TAF1, TAF2, TAF3, TAF4, TAF5, TAF6, TAF7, TAF8, TAF9, TAF10, TAF11, TAF12 and TAF13 (PubMed: 33795473). TAF1 is the largest component and core scaffold of the TFIID complex, involved in nucleating complex assembly (PubMed:25412659, PubMed:27007846, PubMed:33795473). TAF1 forms a promoter DNA binding subcomplex of TFIID, together with TAF7 and TAF2 (PubMed: 33795473). Contains novel N- and C-terminal Ser/Thr kinase domains which can autophosphorylate or transphosphorylate other transcription factors (PubMed:25412659, PubMed:8625415). Phosphorylates TP53 on 'Thr-55' which leads to MDM2- mediated degradation of TP53 (PubMed:25412659). Phosphorylates GTF2A1 and GTF2F1 on Ser residues (PubMed: 25412659). Possesses DNA-binding activity (PubMed: 25412659). Essential for progression of the G1 phase of the cell cycle (PubMed:11278496, PubMed:15053879, PubMed:2038334, PubMed: 8450888, PubMed: 8625415, PubMed:9660973, PubMed:9858607). Exhibits histone acetyltransferase activity towards histones H3 and H4 (PubMed:15870300).

Cellular Location Nucleus

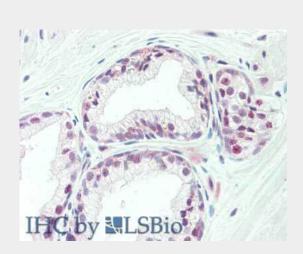
Anti-Transcription Initiation Factor TFIID Subunit 1 (TAF1) (RABBIT) Antibody - Protocols



Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- <u>Immunofluorescence</u>
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

Anti-Transcription Initiation Factor TFIID Subunit 1 (TAF1) (RABBIT) Antibody - Images



Immunohistochemistry of rabbit anti-TAF1 antibody. Tissue: prostate. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: Anti-TAF1 at 10 μ g/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.

Anti-Transcription Initiation Factor TFIID Subunit 1 (TAF1) (RABBIT) Antibody - 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.