10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

KAT4/TAF1 Rabbit pAb

Catalog # AP100250

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	P21675
Other Accession	P21675
Reactivity	Human
Predicted	Rat, Mouse, Chicken, Dog, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	214714
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human TAF1
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the TAF1 family.Contains 2 bromo domains. Contains 1 HMG box DNA-binding domain. Contains 2 protein kinase domains.
SUBUNIT	TAF1 is the largest component of transcription factor TFIID that is composed of TBP and a variety of TBP-associated factors. TAF1, when part of the TFIID complex, interacts with C-terminus of TP53. Component of some MLL1/MLL complex, at least composed of the core components MLL, ASH2L, HCFC1/HCF1, WDR5 and RBBP5, as well as the facultative components C17orf49, CHD8, E2F6, HSP70, INO80C, KANSL1, LAS1L, MAX, MCRS1, MGA, KAT8/MOF, PELP1, PHF20, PRP31, RING2, RUVB1/TIP49A, RUVB2/TIP49B, SENP3, TAF1, TAF4, TAF6, TAF7, TAF9 and TEX10. RB1 interacts with the N-terminal domain of TAF1. Interacts with ASF1A and ASF1B. Interacts with SV40 Large T antigen.
Post-translational modifications	Phosphorylated by casein kinase II in vitro.
DISEASE	Defects in TAF1 are the cause of dystonia type 3 (DYT3) [MIM:314250]; also called X-linked dystonia-parkinsonism (XDP). DYT3 is a X-linked dystonia-parkinsonism disorder. Dystonia is defined by the presence of sustained involuntary muscle contractions, often leading to abnormal postures. DYT3 is characterized by severe progressive torsion dystonia followed by parkinsonism. Its prevalence is high in the Philippines. DYT3 has a well-defined pathology of extensive neuronal loss and mosaic gliosis in the striatum (caudate nucleus and putamen) which appears to resemble that in Huntington disease.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Largest component and core scaffold of the TFIID basal transcription factor complex. Contains novel N- and C-terminal Ser/Thr kinase domains which can autophosphorylate or transphosphorylate other transcription factors. Phosphorylates TP53 on 'Thr-55' which leads to MDM2-mediated degradation of TP53. Phosphorylates GTF2A1 and GTF2F1 on Ser residues. Possesses DNA-binding activity. Essential for progression of the G1 phase of the cell cycle.

Additional Information

Gene ID	6872
Other Names	BA2R; CCG1; CCGS; DYT3; DYT3/TAF1; KAT4; MRXS33; N-TAF1; NSCL2; OF; P250; TAF(II)250; TAF2A; TAFII-250; TAFII250; XDP; B430306D02Rik; Ccg-1; RGD1562050; TAF1_HUMAN; TAF1; Cell cycle gene 1 protein; TBP-associated factor 250 kDa (p250); Transcription initiation factor TFIID 250 kDa subunit (TAF(II)250 | TAFII-250 | TAFII250); 2.3.1.48; 2.7.11.1; TAF1_MOUSE; TATA-box binding protein associated factor 1; TATA box binding protein (TBP)-associated factor, RNA polymerase II, A, 250kD; dystonia 3 (with Parkinsonism); TAF1 RNA polymerase II, TATA box binding protein (TBP)-associated factor, 250kDa
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

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

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.