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GTF2B Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14354a

Product Information

Application	WB, E
Primary Accession	Q00403
Other Accession	P62916, P62915, Q4R3J5, Q2KIN8, NP_001505.1
Reactivity	Human, Mouse
Predicted	Bovine, Monkey, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB34038
Calculated MW	34833
Antigen Region	42-71

Additional Information

Gene ID	2959
Other Names	Transcription initiation factor IIB, General transcription factor TFIIB, S300-II, GTF2B, TF2B, TFIIB
Target/Specificity	This GTF2B antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 42-71 amino acids from the N-terminal region of human GTF2B.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	GTF2B Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GTF2B
Synonyms	TF2B, TFIIB

Function	General transcription factor that plays a role in transcription initiation by RNA polymerase II (Pol II). Involved in the pre-initiation complex (PIC) formation and Pol II recruitment at promoter DNA (PubMed:12931194, PubMed:1517211, PubMed:1876184, PubMed:1946368, PubMed:27193682, PubMed:3029109, PubMed:3818643, PubMed:7601352, PubMed:8413225, PubMed:8515820, PubMed:8516311, PubMed:8516312, PubMed:9420329). Together with the TATA box-bound TBP forms the core initiation complex and provides a bridge between TBP and the Pol II-TFIIF complex (PubMed:8413225, PubMed:8504927, PubMed:8515820, PubMed:8516311, PubMed:8516312). Released from the PIC early following the onset of transcription during the initiation and elongation transition and reassociates with TBP during the next transcription cycle (PubMed:7601352). Associates with chromatin to core promoter-specific regions (PubMed:12931194, PubMed:24441171). Binds to two distinct DNA core promoter consensus sequence elements in a TBP- independent manner; these IIB-recognition elements (BREs) are localized immediately upstream (BREu), 5'-[GC][GC][GA]CGCC-3', and downstream (BREd), 5'-[GA]T[TGA][TG][GT][TG][TG]-3', of the TATA box element (PubMed:10619841, PubMed:16230532, PubMed:7675079, PubMed:9420329). Modulates transcription start site selection (PubMed:10318856). Also exhibits autoacetyltransferase activity that contributes to the activated transcription (PubMed:12931194).
Cellular Location	Nucleus. Chromosome. Note=Non-acetylated form colocalizes with DNA in the G0/1, S and G2 phases of the cell cycle, but not during mitosis (PubMed:24441171). Acetylated form colocalizes at transcriptionally silent mitotic chromatids during mitosis at metaphase, anaphase, and telophase phases of the cell cycle (PubMed:24441171).
Tissue Location	Expressed in the inner cell mass forming the embryoblast (PubMed:24441171). Not detected in cells from the outer thin layer trophoblast (at protein level) (PubMed:24441171)

Background

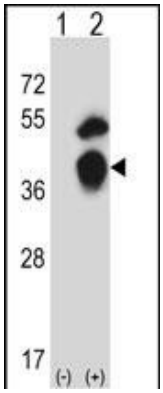
This gene encodes the general transcription factor IIB, one of the ubiquitous factors required for transcription initiation by RNA polymerase II. The protein localizes to the nucleus where it forms a complex (the DAB complex) with transcription factors IID and IIA. Transcription factor IIB serves as a bridge between IID, the factor which initially recognizes the promoter sequence, and RNA polymerase II.

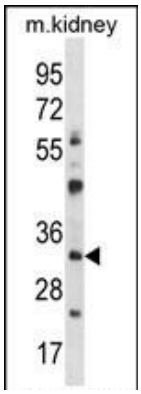
References

Wang, Y., et al. Curr. Biol. 20(6):548-553(2010)
Thompson, N.E., et al. J. Biol. Chem. 284(37):24754-24766(2009)
Gilman, B., et al. J. Biol. Chem. 284(14):9093-9098(2009)
Vogt, C., et al. J. Virol. 82(22):11446-11453(2008)
Elsby, L.M., et al. EMBO Rep. 7(9):898-903(2006)

Images

Western blot analysis of GTF2B (arrow) using rabbit polyclonal GTF2B Antibody (N-term) (Cat. #AP14354a). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the GTF2B gene.





GTF2B Antibody (N-term) (Cat. #AP14354a) western blot analysis in mouse kidney tissue lysates (35ug/lane).This demonstrates the GTF2B antibody detected the GTF2B protein (arrow).