TFIIB Protein, Human (GST)

Cat. No.:	HY-P71357
Synonyms:	Transcription Initiation Factor IIB; General Transcription Factor TFIIB; S300-II; GTF2B; TF2B; TFIIB
Species:	Human
Source:	E. coli
Accession:	Q00403 (M1-L316)
Gene ID:	2959
Molecular Weight:	Approximately 62.0 kDa

PROPERTIES

AA Sequence	M A S T S R L D A L P R V T C P N H P D A I L V E D Y R A G D M I C P E C G L V V G D R V I D V G S E W R T F S N D K A T K D P S R V G D S Q N P L L S D G D L S T M I G K G T G A A S F D E F G N S K Y Q N R R T M S S S D R A M M N A F K E I T T M A D R I N L P R N I V D R T N N L F K Q V Y E Q K S L K G R A N D A I A S A C L Y I A C R Q E G V P R T F K E I C A V S R I S K K E I G R C F K L I L K A L E T S V D L I T T G D F M S R F C S N L C L P K Q V Q M A A T H I A R K A V E L D L V P G R S P I S V A A A A I Y M A S Q A S A E K R T Q K E I G D I A G V A D V T I R Q S Y R L I Y P R A P D L F P T D F K F D T P V D K L P Q L
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of 20 mM Tris-HCl, 100 mM NaCl, pH 8.0.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US;may vary elsewhere.

DESCRIPTION

Background	The TFIIB Protein is a key general transcription factor involved in the initiation of RNA polymerase II (Pol II)-mediated transcription. It plays a crucial role in pre-initiation complex (PIC) formation and recruits Pol II to the promoter DNA. Together with the TATA box-bound TBP, TFIIB forms the core initiation complex, acting as a bridge between TBP and the Pol II-TFIIF complex. Notably, it is released from the PIC early during the initiation and elongation transition of transcription,

reassociating with TBP in the subsequent transcription cycle. TFIIB associates with chromatin at core promoter-specific regions and binds to two distinct DNA core promoter consensus sequence elements known as IIB-recognition elements (BREs). These BREs, located immediately upstream (BREu) and downstream (BREd) of the TATA box element, are recognized in a TBP-independent manner. Additionally, TFIIB exhibits autoacetyltransferase activity, contributing to activated transcription and modulating transcription start site selection. The multifaceted functions of TFIIB highlight its central role in the intricate process of transcription initiation.

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