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TFIID

National Cancer Institute

Source

National Cancer Institute. *TFIID*. NCI Thesaurus. Code C17540.

TFIID is a DNA-binding protein complex required for RNA polymerase II-mediated transcription of many, if not all, protein-encoding genes in eukaryotic cells. TFIID plays a key role in initiation, since it binds to the TATA element to form a complex that nucleates the assembly of the other components into a preinitiation complex. TFIID interacts with TFIIA, which may stabilize its binding. A reinitiation intermediate including TFIID can act as a scaffold for formation of a functional reinitiation complex. TFIID also links the control of transcription to the cell cycle. The DNA-binding subunit of TFIID is the TATA box-binding protein (TBP) that interacts primarily within the minor groove of the DNA helix. The largest subunit of TFIID is TAF1, which can autophosphorylate and transphosphorylate the large subunit of the basal factor TFIIIF. (From OMIM and NCI)