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TFIIA Subunit Gene

National Cancer Institute

Source

National Cancer Institute. *TFIIA Subunit Gene*. NCI Thesaurus. Code C20544.

The three subunits of the TFIIA complex (alpha, beta, and gamma) are encoded by the GTF2A1 and GTF2A2 genes. TFIIA has multiple roles in transcription initiation by RNA polymerase II. First, the association of TFIIA and TBP stabilizes the TBP-TATA element interaction. In so doing, TFIIA also stimulates transcription by displacing TBP-associated repressors and counteracts the ability to inhibit TBP binding to DNA. Second, TFIIA serves as a cofactor for the activators and coactivators. Third, TFIIA is required for the isomerization and extension of TFIIID-promoter contacts and for stabilizing interactions between TFIIID and initiator sequences. (from PMID 10364255)