

[Open Peer Review on Qeios](#)

# TFIIH Subunit Gene

National Cancer Institute

## Source

National Cancer Institute. *TFIIH Subunit Gene*. NCI Thesaurus. Code C20654.

For transcription initiation, the nonphosphorylated RNA polymerase II is recruited by TFIIF to the DB complex. This complex is recognized by TFII E, TFII H, and TFII J to form a transcription-competent complex. Phosphorylation of the C-terminal domain of the largest subunit of RNA polymerase II controls the transition from transcription initiation to elongation and TFII H contains a kinase activity for phosphorylating this domain. Factors that promote the association of RNA polymerase II with the preinitiation complex stimulate this activity. TFII E, which is required for the stable association of TFII H with the preinitiation complex, affects the processivity of TFII H kinase. TFII H is a multisubunit factor of at least 5 proteins of 92, 62, 43, 40, and 35 kD. A 52-kD subunit has also been identified as a component of the TFII H core, along with p89, p62, p44, and p34. (from OMIM, LocusLink and NCI)