Data sheet

IFTA AG
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DIN EN ISO 9001
Reg. No. IC 03214 034

Jena Bioscience

TFIID
Transcription Factor IID, native complex
human, HeLa

Cat. No.	Amount
PR-712	2 µg

For *in vitro* use only
Quality guaranteed for 12 months
Store at -80°C

Avoid freeze / thaw cycles

Form
Liquid. Supplied in 20 mM Tris-HCl pH 8.0, 100 mM KCl, 0.2 mM EDTA, 1 mM DTT and 20% glycerol.

Activity
100 ng are sufficient for reconstituted in vitro transcription assay and 500 ng are sufficient for protein-protein interaction assay detected by immunoblot.

Purity
> 95% by SDS-PAGE

Description
TFIID is a multiprotein complex with a molecular mass of around 750 kDa that directs pre-initiation complex assembly on both TATA box-containing and TATA-less promoters. It consists of TATA-binding protein (TBP) and a number of TBP associated factors (TAFs). TBP alone can replace TFIID in a reconstituted *in vitro* transcription system but only the TFIID complex can mediate transcriptional activation. TAFII250, the largest subunit of TFIID contains protein kinase and histone acetyltransferase activities linking transcriptional initiation/activation with chromatin modification. In addition, multiple serine/threonine phosphorylations of TBP and TAFs selectively inhibit the ability of TFIID to mediate transcriptional activation.
Native TFIID complex is isolated from HeLa nuclear extract after several chromatographic purification steps.
Purified TFIID has been applied for *in vitro* transcription assays, DNA-protein, and protein-protein interaction assays. The TFIID protein complex is 60% - 70% pure and is devoid of most general transcription factors.

Selected References:

Matsui *et al.* (1980) Multiple factors required for accurate initiation of transcription by purified RNA polymerase II. *J. Biol. Chem.* **255**:11992.
Dynlacht *et al.* (1991) Isolation of coactivators associated with the TATA-binding protein that mediate transcriptional activation. *Cell* **66**:563.
Dikstein *et al.* (1996) TAFII250 is a bipartite protein kinase that phosphorylates the base transcription factor RAP74. *Cell* **84**:781.
Buratowski *et al.* (1988) Function of a yeast TATA element-binding protein in a mammalian transcription system. *Nature* **334**:37.
Pugh *et al.* (1990) Mechanism of transcriptional activation by Sp1: evidence for coactivators. *Cell* **61**:1187.
Mizzen *et al.* (1996) The TAF(II)250 subunit of TFIID has histone acetyltransferase activity. *Cell* **87**:1261.
Segil *et al.* (1996) Mitotic regulation of TFIID: inhibition of activatordependent transcription and changes in subcellular localization. *Genes Dev.* **10**:2389.