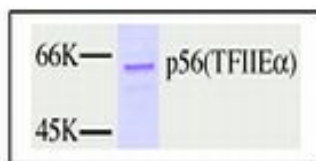


## TFII $\alpha$ , p56

Transcription Factor IIE,  $\alpha$ -subunit  
human, recombinant, *E. coli*

Cat. No.	Amount
PR-704	10 $\mu$ g



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

20 ng are sufficient for an *in vitro* reconstituted transcription assay in the presence of 34 kDa subunit, 100 ng are sufficient for a protein-protein interaction assay.

### Molecular Weight

56 kDa

### Purity

> 95% by SDS-PAGE

### Description

The human Transcription Factor IIE (TFIIE) is composed of 56 kDa ( $\alpha$ ) and 34 kDa ( $\beta$ ) subunits and is shown to be a heterotetramer.

The 56 kDa subunit contains a region similar to a zinc-binding domain and a region sharing homology with the catalytic loop of a kinase domain.

TFIIE binds to RNA Polymerase II in solution and joins the preinitiation complex probably concomitant with RNA Polymerase II and TFIIF.

The recombinant protein is purified from an *E. coli* strain that contains the coding sequence of human TFIIE  $\alpha$ -subunit under the control of T7 promoter.

Although 56 kDa subunit of the TFIIE contains a zinc-binding domain like region, both subunits are required to reconstitute the functional transcription factor.

Protein is purified greater than 95% homogeneous and contains no detectable protease, DNase, and RNase activity.

### Selected References:

Ohkuma *et al.* (1990) Factors involved in specific transcription by mammalian RNA polymerase II: purification and characterization of general transcription factor TFIIE. *Proc. Natl. Acad. Sci. USA* **87**:9163.

Inostroza *et al.* (1991) Factors involved in specific transcription by mammalian RNA polymerase II. Purification and functional analysis of general transcription factor IIE. *J. Biol. Chem.* **266**:9304.

Peterson *et al.* (1991) Structure and functional properties of human general transcription factor IIE. *Nature* **354**:369.

Flores *et al.* (1990) Factors involved in specific transcription by mammalian RNA polymerase II. Purification and subunit composition of transcription factor IIF. *J. Biol. Chem.* **265**:5629.

Maldonado *et al.* (1996) Purification of human RNA polymerase II and general transcription factors. *Methods Enzymol.* **274**:72.