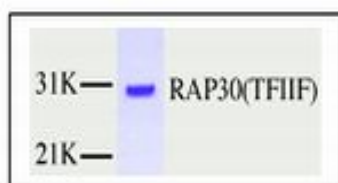


## TFIIF, RAP30

Transcription Factor IIF, Rap30 subunit  
human, recombinant, *E. coli*

Cat. No.	Amount
PR-708	10 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, 500 mM KCl, 0.2 mM EDTA, 1 mM DTT, 20% glycerol.

### Activity

1-10 ng is sufficient for a gel mobility shift assay in a 20 µl reaction to form a D/B/Pol/30 complex, 20 ng are sufficient for reconstituted transcription assay and 100 ng are sufficient for a protein-protein interaction assay.

### Molecular Weight

30 kDa

### Purity

> 95% by SDS-PAGE

### Description

The transcription factor IIF (TFIIF) is composed of 58 kDa (RAP74) and 26 kDa (RAP30) subunits as a heterodimer, and was first identified through the ability to interact with immobilized RNA Polymerase II. The RAP30 subunit of TFIIF contains two distinct regions with sequence similarity to *E. coli* factors and can deliver RNA- Polymerase II to the promoter to support transcription initiation in the absence of RAP74.

Recombinant RAP30 protein is isolated from an *E. coli* strain that carries the coding sequence of human RAP74, the 58 kDa subunit of TFIIF under the control of T7 promoter.

RAP30 can interact with RNA Polymerase II, with TFIIB, and with DNA.

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

### Selected References:

- Sopta *et al.* (1985) Isolation of three proteins that bind to mammalian RNA polymerase II. *J. Biol. Chem.* **260**:10353.  
Sopta *et al.* (1989) Structure and associated DNA-helicase activity of a general transcription initiation factor that binds to RNA polymerase II. *Nature* **341**:410.  
McCracken *et al.* (1991) Related RNA polymerasebinding regions in human RAP30/74 and Escherichia coli sigma 70. *Science* **253**:900. Erratum in: *Science* 1992 Mar 6; **255**:1195.  
Ha *et al.* (1993) Multiple functional domains of human transcription factor IIB: distinct interactions with two general transcription factors and RNA polymerase II. *Genes & Dev.* **7**:1021.  
Tan *et al.* (1995) Dissection of Transcription Factor TFIIF Functional Domains Required for Initiation and Elongation. *Proc. Natl. Acad. Sci. USA* **92**:6042.