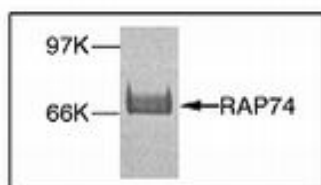


## TFIIF, RAP74

Transcription Factor IIF, Rap74 subunit  
human, recombinant, *E. coli*

Cat. No.	Amount
PR-707	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 the amount sufficient for a gel mobility shift assay in a 20 µl reaction to form a D/B/Pol/74 complex, 20 ng are sufficient for reconstituted transcription assay and 100 ng are sufficient for a protein-protein interaction assay.

### Molecular Weight

70 kDa

### Purity

> 95% by SDS-PAGE

### Description

The transcription factor IIF (TFIIF) is a heterodimer, composed of 58 kDa (RAP74) and 26 kDa (RAP30) subunits. It was first identified through the ability to interact with immobilized RNA Polymerase II. In addition to its role in transcription initiation, TFIIF can increase the specificity and efficiency of RNA Polymerase II transcription, and can especially increase the rate of transcription elongation.

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

RAP74 is required for stimulation of the rate of RNA Polymerase II elongation through a direct interaction with pol II and for start site selection. RAP74 is heavily phosphorylated *in vivo* and can be phosphorylated by TAFII250, a subunit of TFIID.

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.  
Flores *et al.* (1989) Factors involved in specific transcription by mammalian RNA polymerase II. Factors IIE and IIF independently interact with RNA polymerase II. *J. Biol. Chem.* **264**:8913.  
Price *et al.* (1989) Dynamic interaction between a Drosophila transcription factor and RNA polymerase II. *Mol. Cell. Biol.* **9**:1465.  
Dikstein *et al.* (1996) TAFII250 is a bipartite protein kinase that phosphorylates the base transcription factor RAP74. *Cell* **84**:781.