

RAP30^{GST}

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

| Cat. No. | Amount |
|----------|--------|
| PR-790 | 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 and 20% glycerol.

Activity

100 ng are sufficient for a protein-protein interaction assay.

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 β -subunit of TFIIF under the control of a T7 promoter. RAP30 can interact with RNA Polymerase II, with TFIIB, and with DNA. GST-RAP30 has been used in protein-protein interactions assay.

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 polymerase-binding 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.
- Kaludov *et al.* (2000) MeCP2 driven transcriptional repression *in vitro*: selectivity for methylated DNA, action at a distance and contacts with the basal transcription machinery. *Nucleic Acids Res.* **28**:1921.