

RNA pol II-hRPB6^{GST} RNA Polymerase II, p15.6 subunit human, recombinant, *E. coli*

Cat. No.	Amount
PR-792	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, 100 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

hRPB6 is a highly conserved subunit shared by all three RNA Polymerases, consisting of 142 amino acid residues. The gene for yeast RPB6 is essential for cell viability and homologues of this subunit exist in archaeal and some viral RNA Polymerases. For example the bacterial RPB6 (the fifth subunit of the bacterial RNAP core enzyme) and eukaryotic RPB6 are structural homologs. RPB6 has been shown to promote Pol II complex assembly, and/or increase its stability, through specific interactions with the largest subunit of RNA Pol II (β' in bacteria, RPB1 in eukaryotic Pol II). In addition, RPB6 was found to make contact with three small subunits, Rpb5, Rpb7, and Rpb8 and to play a role in the interaction between RNA Polymerase II and the Transcription Elongation Factor TFIIS.

Recombinant human RPB6 is isolated from an *E. coli* strain that carries the coding sequence of human RPB6 under the control of a T7 promoter.

RPB6 has been applied in protein-protein interactions assays.

Selected References:

- Woychik *et al.* (1990) Subunits shared by eukaryotic nuclear RNA polymerases. *Genes Dev.* **4**:313.
Minakhin *et al.* (2001) Bacterial RNA polymerase subunit omega and eukaryotic RNA polymerase subunit RPB6 are sequence, structural, and functional homologs and promote RNA polymerase assembly. *Proc. Natl. Acad. Sci. USA* **98**:892.
Ishiguro *et al.* (2000) The Rpb6 subunit of fission yeast RNA polymerase II is a contact target of the transcription elongation factor TFIIS. *Mol. Cell Biol.* **20**:1263.