

Recombinant Human POLR2I, His-tagged

Cat. No. POLR2I-8463H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human POLR2I, fused with His tag, was expressed in E. coli.
Species	Human
Source	E.coli
Description	hRPB9 is a subunit unique to RNA polymerase II, although it has sequence homologues in RNA polymerases I and III. The gene for Rpb9 is not essential for yeast cell viability , but is essential ini Drosophila . hRPB9 has roles in both transcription initiation and transcription elongation. In the initiation reaction it is necessary for accurate start site selection. In the elongation reaction, RPB9, along with TFIIS facilitates the conversion of an arrest-competent conformation to a read-through competent conformation. RNA polymerase II lacking the RPB9 subunit uses alternate transcription initiation sites in vitro and in vivo and is unable to respond to the transcription elongation factor TFIIS in vitro. A role in the modulation of initiation and elongation is consistent with the localization of RPB9 in the three-dimensional structure of yeast RNA polymerase II. RPB9 is located at the tip of the so-called "jaws" of the enzyme, which is thought to function by clamping the DNA downstream of the active site. RPB9 comprises two zinc ribbon domains joined by a conserved linker region. The C-terminal zinc ribbon is similar in sequence to that found in TFIIS.
Form	20 mM Tris-Cl, pH 7.9, 20% Glycerol, 100 mM KCl, 1 mM DTT and 0.2 mM EDTA
AA Sequence	MEPDGTYEPG FVGIRFCQEC NNMLYPKEDK ENRILLYACR NCDYQQEADN

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SCIYV NKITH EVDEL TQIIA DVSQDPTLPR TEDHPCQKCG HKEAVFFQSH
SARAEDAMRL YYVCTAPHCG HRWTE

Purity >95% as determined by SDS-PAGE

Storage -80 °C

Concentration 300 µg/ml

Shipping Dry Ice

GENE INFORMATION

Gene Name POLR2I polymerase (RNA) II (DNA directed) polypeptide I, 14.5kDa [Homo sapiens]

Official Symbol POLR2I

Synonyms POLR2I; polymerase (RNA) II (DNA directed) polypeptide I, 14.5kDa; polymerase (RNA) II (DNA directed) polypeptide I (14.5kD); DNA-directed RNA polymerase II subunit RPB9; hRPB14.5; RPB9; RPB14.5; RNA polymerase II subunit B9; RNA polymerase II 14.5 kDa subunit; DNA-directed RNA polymerase II subunit I; DNA-directed RNA polymerase II 14.5 kDa polypeptide;

Gene ID 5438

mRNA Refseq NM_006233

Protein Refseq NP_006224

MIM 180662

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UniProt ID	P36954
Chromosome Location	19q12
Pathway	Abortive elongation of HIV-1 transcript in the absence of Tat, organism-specific biosystem; DNA Repair, organism-specific biosystem; Disease, organism-specific biosystem; Dual incision reaction in TC-NER, organism-specific biosystem; Eukaryotic Transcription Initiation, organism-specific biosystem; Formation of HIV-1 elongation complex containing HIV-1 Tat, organism-specific biosystem; Formation of HIV-1 elongation complex in the absence of HIV-1 Tat, organism-specific biosystem;
Function	DNA binding; DNA-directed RNA polymerase activity; metal ion binding; contributes_to protein kinase activity; zinc ion binding;

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