

Recombinant Human POLR2A, His-tagged

Cat. No. POLR2A-29986TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant His tagged fragment containing the carboxy-terminal repeat domain of Human RNA polymerase II isolated from an E. coli strain that carries the coding sequence of human RNA pol II CTD under the control of a T7 promoter.
Species	Human
Source	E.coli
Description	This gene encodes the largest subunit of RNA polymerase II, the polymerase responsible for synthesizing messenger RNA in eukaryotes. The product of this gene contains a carboxy terminal domain composed of heptapeptide repeats that are essential for polymerase activity. These repeats contain serine and threonine residues that are phosphorylated in actively transcribing RNA polymerase. In addition, this subunit, in combination with several other polymerase subunits, forms the DNA binding domain of the polymerase, a groove in which the DNA template is transcribed into RNA.
Conjugation	HIS
Form	Liquid
Purity	>95% by SDS-PAGE
Storage buffer	Preservative: None Constituents: 20% Glycerol, 20mM Tris HCl, 100mM Potassium chloride, 1mM DTT, 0.2mM EDTA, pH 8.0

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Storage	Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.
Sequence Similarities	Belongs to the RNA polymerase beta chain family.
GENE INFORMATION	
Gene Name	POLR2A polymerase (RNA) II (DNA directed) polypeptide A, 220kDa [Homo sapiens]
Official Symbol	POLR2A
Synonyms	POLR2A; polymerase (RNA) II (DNA directed) polypeptide A, 220kDa; POLR2, polymerase (RNA) II (DNA directed) polypeptide A (220kD); DNA-directed RNA polymerase II subunit RPB1; POLRA; RPB1;
Gene ID	5430
mRNA Refseq	NM_000937
Protein Refseq	NP_000928
Uniprot ID	P24928
Chromosome Location	17p13.1
Pathway	Abortive elongation of HIV-1 transcript in the absence of Tat, organism-specific biosystem; DNA Repair, organism-specific biosystem; Dual incision reaction in TC-NER, organism-specific biosystem; Eukaryotic Transcription Initiation, organism-specific biosystem; Formation and Maturation of mRNA Transcript, organism-specific

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biosystem;

Function

DNA binding; DNA-directed RNA polymerase activity; RNA-directed RNA polymerase activity; metal ion binding; nucleotidyltransferase activity;

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