



# Recombinant Human DNA-directed RNA polymerase III subunit RPC1 (POLR3A), partial

|                          |   |
|--------------------------|---|
| <b>Product Code</b>      | CSB-EP018343HU  |
| <b>Relevance</b>         | DNA-dependent RNA polymerase catalyzes the transcription of DNA into RNA using the four ribonucleoside triphosphates as substrates. Largest and catalytic core component of RNA polymerase III which synthesizes small RNAs, such as 5S rRNA and tRNAs. Forms the polymerase active center together with the second largest subunit. A single-stranded DNA tplate strand of the promoter is positioned within the central active site cleft of Pol III. A bridging helix anates from RPC1 and crosses the cleft near the catalytic site and is thought to promote translocation of Pol III by acting as a ratchet that moves the RNA-DNA hybrid through the active site by switching from straight to bent conformations at each step of nucleotide addition . Plays a key role in sensing and limiting infection by intracellular bacteria and DNA viruses. Acts as nuclear and cytosolic DNA sensor involved in innate immune response. Can sense non-self dsDNA that serves as tplate for transcription into dsRNA. The non-self RNA polymerase III transcripts, such as Epstein-Barr virus-encoded RNAs (EBERs) induce type I interferon and NF- Kappa-B through the RIG-I pathway. |
| <b>Abbreviation</b>      | Recombinant Human POLR3A protein, partial   |
| <b>Storage</b>           | The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.   |
| <b>Uniprot No.</b>       | O14802  |
| <b>Alias</b>             | DNA-directed RNA polymerase III largest subunitDNA-directed RNA polymerase III subunit ARNA polymerase III 155 kDa subunit ;RPC155RNA polymerase III subunit C160   |
| <b>Product Type</b>      | Recombinant Protein   |
| <b>Immunogen Species</b> | Homo sapiens (Human)  |
| <b>Purity</b>            | ≥ 90% as determined by SDS-PAGE.  |
| <b>Sequence</b>          | FPEKVNKANINFLRKL VQNGPEVHPGANFIQQRHTQMKRFLKYGNREKMAQE LKYGDIVERHLIDGDV VLFNRQPSLHKLSIMAHLARVKPHRTFRFNECVCTPYN ADFDGD E MNLHLPQTEEA KAEALVLMGTKANLVTPRNGEPLIAAIQDFLTGAYL LTLKDTFFDRAKACQIIASILVGKDEKIKVRLPPPTILKPVTLWTGKQIFSVILRPS DDNPVRANLRRTKGKQYCGKGEDLC   |
| <b>Research Area</b>     | Epigenetics and Nuclear Signaling   |
| <b>Source</b>            | E.coli  |
| <b>Target Names</b>      | POLR3A  |
| <b>Expression Region</b> | 392-632aa   |

**Notes**

Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

**Tag Info**

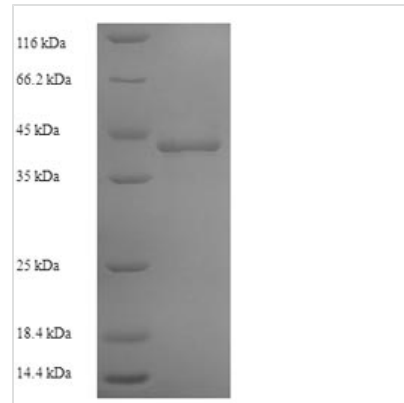
N-terminal 6xHis-SUMO-tagged

**Mol. Weight**

43.4kDa

**Protein Length**

Partial

**Image**

(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

**Reconstitution**

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

**Shelf Life**

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.

Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.