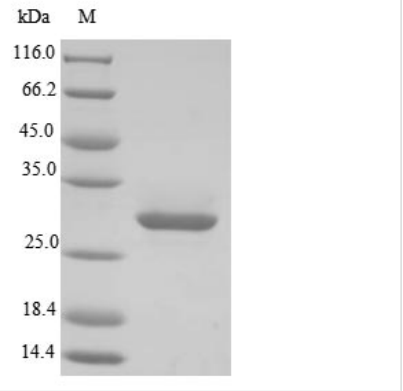
Recombinant Heron hepatitis B virus Protein P (P), partial

Product Code	CSB-EP319601HGG
Relevance	Multifunctional enzyme that converts the viral RNA genome into dsDNA in viral cytoplasmic capsids. This enzyme displays a DNA polymerase activity that can copy either DNA or RNA templates, and a ribonuclease H (RNase H) activity that cleaves the RNA strand of RNA-DNA heteroduplexes in a partially processive 3'- to 5'-endonucleasic mode. Neo-synthesized pregenomic RNA (pgRNA) are encapsidated together with the P protein, and reverse-transcribed inside the nucleocapsid. Initiation of reverse-transcription occurs first by binding the epsilon loop on the pgRNA genome, and is initiated by protein priming, thereby the 5'-end of (-)DNA is covalently linked to P protein. Partial (+)DNA is synthesized from the (-)DNA template and generates the relaxed circular DNA (RC-DNA) genome. After budding and infection, the RC-DNA migrates in the nucleus, and is converted into a plasmid-like covalently closed circular DNA (cccDNA). The activity of P protein does not seem to be necessary for cccDNA generation, and is presumably released from (+)DNA by host nuclear DNA repair machinery
Abbreviation	Recombinant Heron hepatitis B virus protein P, partial
Storage	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.
Uniprot No.	P13846
Product Type	Recombinant Protein
Immunogen Species	Heron hepatitis B virus (HHBV)
Purity	≥ 85% as determined by SDS-PAGE.
Sequence	SYLRGNTSWPNRVTGRIFLVDKNSRNTEEARLVVDFSQFSKGKNAMRFPKYW CPNLTTLRRILPVGMPRISLDLSQAFYHLPLAPASSSRLAVSDGKQVYYFRKAP MGVGLSPFLLHLFTTAIGAEIASRFNVWTFSYMDDFLLCHPSARHLNTISHAVC TFLQEFGIRINFDKMTPSPVTTIRFLGYEI
Research Area	Others
Source	E.coli
Target Names	P
Protein Names	Recommended name: Protein P Including the following 3 domains: DNA-directed DNA polymerase EC= 2.7.7.7 RNA-directed DNA polymerase EC= 2.7.7.49 Ribonuclease H EC= 3.1.26.4
Expression Region	376-565aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at

	4°C for up to one week.
Tag Info	N-terminal 10xHis-tagged and C-terminal Myc-tagged
Mol. Weight	28.7 kDa
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.