

Recombinant Human PCNA, His-tagged

Cat. No. PCNA-175H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human PCNA (Met 1-Ser 261) fused with a polyhistidine tag at the N-terminus, was expressed in Baculovirus-Insect cells.
Species	Human
Source	Insect Cells
ProteinLength	1-261 a.a.
Description	The protein encoded by this gene is found in the nucleus and is a cofactor of DNA polymerase delta. The encoded protein acts as a homotrimer and helps increase the processivity of leading strand synthesis during DNA replication. In response to DNA damage, this protein is ubiquitinated and is involved in the RAD6-dependent DNA repair pathway. Two transcript variants encoding the same protein have been found for this gene. Pseudogenes of this gene have been described on chromosome 4 and on the X chromosome.
Molecular Mass	The recombinant human PCNA consists of 280 amino acids and has a calculated molecular mass of 31KDa. It migrates as an approximately 36 KDa band in SDS-PAGE under reducing conditions.
Predicted N terminal	Met
Purity	> 90 % as determined by SDS-PAGE

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Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method
Formulation	Lyophilized from sterile 50mM Na ₃ PO ₄ , 300mM NaCl, 10%glycerol, pH 7.0, 2mM DTT
Storage	Store it under sterile conditions at -70°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Reconstitution	A hardcopy of COA with reconstitution instruction is sent along with the products.
OfficialSymbol	PCNA

GENE INFORMATION

Gene Name	PCNA proliferating cell nuclear antigen [Homo sapiens]
Synonyms	MGC8367; PCNA; Proliferating cell nuclear antigen; Cyclin; proliferating cell nuclear antigen; cyclin; DNA polymerase delta auxiliary protein
Gene ID	5111
mRNA Refseq	NM_002592
Protein Refseq	NP_002583
MIM	176740
UniProt ID	P12004
Chromosome Location	20pter-p12

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Pathway	Base excision repair; Cell cycle; DNA replication; Mismatch repair; Nucleotide excision repair; Cell Cycle, Mitotic; DNA Repair; DNA Replication; Telomere Maintenance
Function	DNA binding; DNA polymerase processivity factor activity; MutLalpha complex binding; dinucleotide insertion or deletion binding; protein binding; purine-specific mismatch base pair DNA N-glycosylase activity

The assembled human DNA clamp, a trimer of the protein PCNA.

