



Recombinant PCNA Antigen (DAG-T1219)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Product Overview	Purified recombinant full-length human sequence protein. After coating onto ELISA plates the product will bind autoantibodies to PCNA.
Antigen Description	Proliferating cell nuclear antigen (PCNA) is a DNA clamp that acts as a processivity factor for DNA polymerase δ in eukaryotic cells and is essential for replication. PCNA is a homotrimer and achieves its processivity by encircling the DNA, where it acts as a scaffold to recruit proteins involved in DNA replication, DNA repair, chromatin remodeling and epigenetics. Many proteins interact with PCNA via the two known PCNA-interacting motifs PCNA-interacting peptide (PIP) box and AlkB homologue 2 PCNA interacting motif (APIM). Proteins binding to PCNA via the PIP-box are mainly involved in DNA replication whereas proteins binding to PCNA via APIM are mainly important in the context of genotoxic stress. 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.
Purity	The PCNA autoantigen (34 kDa) is more than 90% pure, as assessed by SDS-polyacrylamide gel electrophoresis.
Concentration	0.1-1.0 mg/ml.
Size	0.20 mg
Preservative	None
Storage	The product is stabilised with 0.1% Micr-O-protect TM. Store at -20°C or below (long term) or at +4°C (short term). Avoid repeated freezing and thawing. Mix thoroughly before use.

GENE INFORMATION

Gene Name	pcnA sliding clamp PCNA [Haloferax volcanii DS2]
Official Symbol	PCNA
Synonyms	PCNA; sliding clamp PCNA;
Entrez Gene ID	8924994
Pathway	Base excision repair; Base excision repair; DNA replication; DNA replication; Mismatch repair; Mismatch repair; Nucleotide excision repair
References	PCNA;sliding clamp PCNA;proliferating cell nuclear antigen;cyclin;MGC8367;DNA polymerase delta auxiliary protein;OTTHUMP00000030189;Cyclin;OTTHUMP00000030190;HGNC: 8729;Entrez Gene: 5111;Ensembl: ENSG00000132646;OMIM: 176740;UniProtKB: P12004;P12004;PCNA_HUMAN;