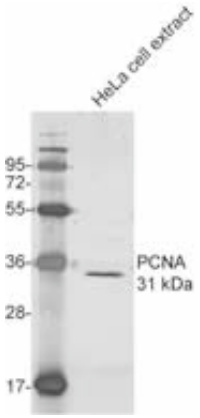
PCNA antibody [16D10]

Description	Rat monoclonal [16D10] to PCNA
Product Type	Primary antibody
Specificity	Human, Mouse, Rat, Hamster predicted to react with Cow, Dog, Sheep
Isotype	IgG2b
Application	Western blot: recommended starting concentration 1/2000 IF: recommended starting concentration 1/2000 IP: recommended starting volume 25 µl/IP Optimal dilutions/concentrations should be determined by the end user.
Cellular localization	nuclear
Relevance	Proliferating cell nuclear antigen (PCNA) is a homotrimeric ring-shaped protein that encircles the DNA and acts as a stationary loading platform for multiple, transiently interacting partners participating in various DNA transactions. This essential cellular component, originally characterized as a nuclear antigen of dividing cells, is evolutionary highly conserved from yeast to human. Within the eukaryotic cell, PCNA plays a key role in DNA replication, repair, cell cycle regulation, and post-replicative transactions like DNA methylation and chromatin remodeling. All these cellular processes are regulated by a complex network comprising cell cycle dependent changes in expression levels, dynamics, interactions, and localization of PCNA.
Form	Liquid; hybridoma supernatant
Size	25 µl / 100 µl
Storage Buffer	Preservative: 0.01% Sodium Azide Material safety datasheet (MSDS) for this product: **Sodium Azide MSDS**
Storage instructions	Shipped at ambient temperature. Upon receipt store at +4°C. Stable for one year. Do not freeze.
References	Rottach, A *et al.,* Generation and characterization of a rat monoclonal antibody specific for PCNA. Hybridoma (2008). **PMID: 18642673** Spada *et al.*, DNMT1 but not its interaction with the replication machinery is required for maintenance of DNA methylation in human cells. JCB (2007). **PMID: 17312023** Schermelleh *et al.,* Dynamics of Dnmt1 interaction with the replication machinery and its role in postreplicative maintenance of DNA methylation. NAR (2007). **PMID: 17576694**

Tested Applications

Western blot:

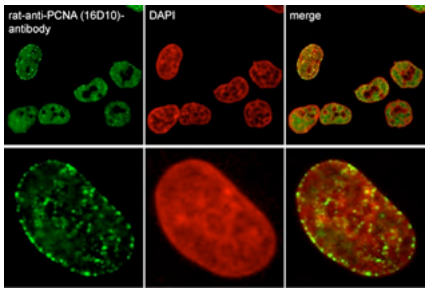
primary antibody: 16D10 diluted 1/2000, incubation at 4°C o.n.
secondary antibody: 1/2000 anti-rat-Alexa647



Immunofluorescence

primary antibody: 16D10 diluted 1/2000, incubation at 4°C o.n.
secondary antibody: 1/400 anti-rat-Alexa488

Fixation: HeLa cells were first fixed with 3.7% PFA, followed by Methanol fixation.



Immunofluorescence of HeLa cells using PCNA antibody 16D10.

Only for research applications, not for diagnostic or therapeutic use.