

#13439 Store at -20°C

Ubiquityl-PCNA (Lys164) (D5C7P) Rabbit mAb



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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP	H	Endogenous	44	Rabbit IgG	#P12004	5111

Product Usage Information	Application	Dilution
	Western Blotting	1:1000
	Immunoprecipitation	1:50
Storage	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.	
Specificity / Sensitivity	Ubiquityl-PCNA (Lys164) (D5C7P) Rabbit mAb recognizes endogenous levels of PCNA protein only when ubiquitinated at Lys164.	
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Lys164 of human PCNA protein.	
Background	Proliferating cell nuclear antigen (PCNA) is a member of the DNA sliding clamp family of proteins that assist in DNA replication (1). Crystal structure data suggests that a PCNA homotrimer ring can encircle and slide along the DNA double helix (2). Multiple proteins involved in DNA replication, DNA repair, and cell cycle control bind to PCNA rather than directly associating with DNA, thus facilitating fast processing of DNA (reviewed in 3). PCNA protein expression is a well-accepted marker of proliferation. PCNA is mono-ubiquitinated at Lys164 in response to DNA damage at stalled replication forks. This modification is important in the translesion synthesis (TLS) DNA repair pathway (reviewed in 4,5).	
Background References	<ol style="list-style-type: none"> 1. Kelman, Z. and O'Donnell, M. (1995) <i>Nucleic Acids Res</i> 23, 3613-20. 2. Krishna, T.S. et al. (1994) <i>Cell</i> 79, 1233-43. 3. Maga, G. and Hubscher, U. (2003) <i>J Cell Sci</i> 116, 3051-60. 4. Lee, K.Y. and Myung, K. (2008) <i>Mol Cells</i> 26, 5-11. 5. Chen, J. et al. (2011) <i>Cell Biochem Biophys</i> 60, 47-60. 	

Species Reactivity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
Western Blot Buffer	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.
Applications Key	WB: Western Blotting IP: Immunoprecipitation
Cross-Reactivity Key	H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus Mi: mink C: chicken Dm: D. melanogaster X: Xenopus Z: zebrafish B: bovine Dg: dog Pg: pig Sc: S. cerevisiae Ce: C. elegans Hr: horse GP: Guinea Pig Rab: rabbit All: all species expected
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