

#91327 Store at -20C

## hnRNP C1/C2 (D6S3N) Rabbit mAb



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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB	H Mk	Endogenous	40	Rabbit IgG	#P07910	3183

<b>Product Usage Information</b>	<b>Application</b> Western Blotting	<b>Dilution</b> 1:1000
<b>Storage</b>	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.	
<b>Specificity / Sensitivity</b>	hnRNP C1/C2 (D6S3N) Rabbit mAb recognizes endogenous levels of total hnRNP C1/C2 protein.	
<b>Source / Purification</b>	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ile217 of human hnRNP C1/C2 protein.	
<b>Background</b>	Heterogeneous nuclear ribonucleoprotein C1/C2 (hnRNP C1/C2) has multiple biological functions including transcriptional regulation, DNA repair, and RNA processing. hnRNP C1/C2 acts as a 'molecular ruler' in the mRNA processing pathway, committing nascent transcripts from the chromatin template to the mRNA export pathway once the nascent transcript becomes longer than 200-300 nucleotides (1). hnRNP C1/C2 associates with SWI/SNF and NurD family members to form the locus control region (LCR)-associated remodeling complex (LARC), which binds to β-globin gene promoter to prevent transcriptional silencing. Studies indicate that without hnRNP C1/C2, LARC does not associate with its target DNA sequence (2,3). hnRNP C1/C2 and other hnRNP family members interact with DNA damage response (DDR) proteins (4). hnRNP proteins regulate double stranded break (DSB) repair by promoting either homologous recombination (HR) or non-homologous end joining (NHEJ) (4). hnRNP C1/C2 downregulates the expression of miR-21, which leads to the increased expression of programmed cell death 4 (PDCD4) protein in glioblastoma multiforme (GBM) (5). Research studies have shown that silencing of hnRNP C1/C2 renders GBM cells more susceptible to apoptosis (5).	
<b>Background References</b>	<ol style="list-style-type: none"> <li>McCloskey, A. et al. (2012) <i>Science</i> 335, 1643-6.</li> <li>Huang, L. et al. (2011) <i>Mol Cell Biol</i> 31, 3472-84.</li> <li>Mahajan, M.C. et al. (2005) <i>Proc Natl Acad Sci U S A</i> 102, 15012-7.</li> <li>Haley, B. et al. (2009) <i>Int J Radiat Biol</i> 85, 643-55.</li> <li>Park, Y.M. et al. (2012) <i>Mol Cell Biol</i> 32, 4237-44.</li> </ol>	

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