

hnRNP C1/C2 Antibody

✓ 100 µl
(10 western blots)



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For Research Use Only. Not For Use In Diagnostic Procedures.

Entrez-Gene ID #3183
Swiss-Prot Acc. #P07910

Applications W Endogenous	Species Cross-Reactivity* H, Mk	Molecular Wt. 40 kDa	Source Rabbit**
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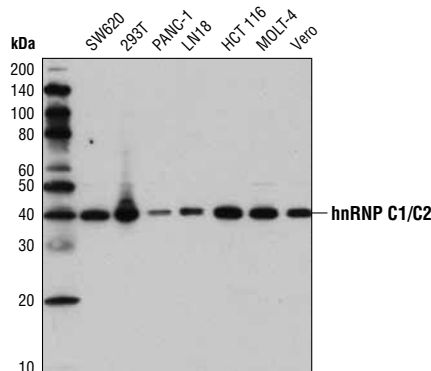
Background: Heterogeneous nuclear ribonucleoprotein C1/C2 (hnRNP C1/C2) has multiple biological functions including transcriptional regulation, DNA repair, and RNA processing pathways. hnRNP C1/C2 acts as a 'molecular ruler' in the mRNA processing pathway, committing nascent transcripts from the chromatin template to the mRNA export pathway once the nascent transcript becomes longer than 200-300 nucleotides (1). Studies indicate that without hnRNP C1/C2, the LCR-associated remodeling complex (LARC) does not associate with its target DNA sequence (2,3). LARC regulates the transcription of β -globin genes during erythropoiesis (2,3). hnRNP C1/C2, as well as other hnRNP proteins, 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 down-regulates 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).

Specificity/Sensitivity: hnRNP C1/C2 Antibody recognizes endogenous levels of total hnRNP C1/C2 protein. This antibody does not cross-react with other hnRNPC1 or RALY proteins.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human hnRNP C1/C2 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background References:

- (1) McCloskey, A. et al. (2012) *Science* 335, 1643-6.
- (2) Huang, L. et al. (2011) *Mol Cell Biol* 31, 3472-84.
- (3) Mahajan, M.C. et al. (2005) *Proc Natl Acad Sci USA* 102, 15012-7.
- (4) Haley, B. et al. (2009) *Int J Radiat Biol* 85, 643-55.
- (5) Park, Y.M. et al. (2012) *Mol Cell Biol* 32, 4237-44.



Western blot analysis of extracts from various cell lines using hnRNP C1/C2 Antibody.

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western blotting 1:1000

For product specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended complementary products.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey 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 All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.