

#5847 Store at -20°C

RecQL5 (1A2) Mouse 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	120	Mouse IgG1	#O94762	9400

Product Usage Information

Application

Western Blotting

Dilution

1:1000

Immunoprecipitation

1:100

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

RecQL5 (1A2) Mouse mAb recognizes endogenous levels of total RecQL5 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with recombinant protein specific to the carboxy terminus of human RecQL5 protein.

Background

The RecQ family is a group of DNA helicases that play an important role in global genomic stability (1). Mutations in three of the five known human RecQ proteins (BLM, WRN, and RECQL4) give rise to clinically distinct disorders that are characterized by features such as premature aging and predisposition to cancer (2,3). The clinical distinction of each disease associated with these mutations points to distinct roles that members of this helicase family play in DNA metabolism. The RecQL5 helicase has not yet been associated with any human disease, but RecQL5 ^{-/-} mice exhibit an increased incidence of cancer (4,5). It has recently been shown that RecQL5 protects genome stability through two parallel mechanisms: helicase action and interaction with the initiation form of RNA Polymerase II (6). It has also been shown that RecQL5 ^{-/-} mouse embryonic stem cells display an elevated frequency of sister chromatid exchange (SCE), suggesting a role in suppression of homologous recombination and/or crossover events (7,8).

Background References

1. Chu, W.K. and Hickson, I.D. (2009) *Nat Rev Cancer* 9, 644-54.
2. Hanada, K. and Hickson, I.D. (2007) *Cell Mol Life Sci* 64, 2306-22.
3. Dietschy, T. et al. (2007) *Cell Mol Life Sci* 64, 796-802.
4. Hu, Y. et al. (2007) *Genes Dev* 21, 3073-84.
5. Bachrati, C.Z. and Hickson, I.D. (2008) *Chromosoma* 117, 219-33.
6. Islam, M.N. et al. (2010) *Mol Cell Biol* 30, 2460-72.
7. Hu, Y. et al. (2005) *Mol Cell Biol* 25, 3431-42.
8. Hu, Y. et al. (2009) *Mol Biol Cell* 20, 114-23.

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 nonfat dry milk, 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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