

**#2814** Store at -20C

# RecQ4 Antibody


**Cell Signaling**  
TECHNOLOGY®

**Orders:** 877-616-CELL (2355)  
orders@cellsignal.com

**Support:** 877-678-TECH (8324)

**Web:** info@cellsignal.com  
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB	H R	Endogenous	150	Rabbit	#O94761	9401

## Product Usage Information

### Application

Western Blotting

### Dilution

1:1000

## 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.

## Specificity / Sensitivity

RecQ4 Antibody detects endogenous levels of total RecQ4 protein.

## Species predicted to react based on 100% sequence homology:

Monkey

## Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to amino acids near the amino terminus of human RecQ4. Antibodies are purified by peptide affinity chromatography.

## Background

RECQL4 is a member of the RecQ family of DNA helicases that plays an important role in global genomic stability. There are five members of this family in humans, and mutations in three of these, BLM, WRN and RECQL4, give rise to disorders that are characterized by premature aging and a predisposition to cancer (1). Despite the presence of a helicase domain, no helicase activity has been reported for RECQL4. Rather, RECQL4 has an ATPase function that is stimulated by ssDNA, and a ssDNA annealing activity that is inhibited by RPA (2). RECQL4 has been reported to interact with ubiquitin ligases UBR1 and UBR2 (3). The role of RECQL4 in tumor suppression and the maintenance of genomic integrity has been attributed to its activities associated with the regulation of DNA replication, and DNA recombination and repair (4-6). Mutations in the RECQL4 gene have been identified in a subset of patients with Rothmund-Thomson syndrome (RTS) - a disorder characterized by growth deficiency, skin and skeletal abnormalities, and cancer predisposition. Two more autosomal recessive disorders have been associated with RECQL4 gene mutations: RAPADILINO, and Baller-Gerold syndromes (4).

## Background References

1. Hanada, K. and Hickson, I.D. (2007) *Cell Mol Life Sci*.
2. Macris, M.A. et al. (2006) *DNA Repair (Amst)* 5, 172-80.
3. Yin, J. et al. (2004) *Hum Mol Genet* 13, 2421-30.
4. Dietschy, T. et al. (2007) *Cell Mol Life Sci* 64, 796-802.
5. LeRoy, G. et al. (2005) *Nucleic Acids Res* 33, 6251-7.
6. Sengupta, S. et al. (2005) *Oncogene* 24, 1738-48.

## 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

## 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

**Trademarks and Patents**

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.

All other trademarks are the property of their respective owners. Visit [cellsignal.com/trademarks](https://cellsignal.com/trademarks) for more information.

**Limited Uses**

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.