

RYBP (D8J7W) Rabbit mAb

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/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H M R Mk	Endogenous	32	Rabbit IgG	#Q8N488	23429

Product Usage Information**Application**

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:200

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

RYBP (D8J7W) Rabbit mAb recognizes endogenous levels of total RYBP protein.

Source / Purification

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

Background

Ring1 and YY1-binding protein (RYBP) is a widely expressed nuclear protein that functions as a modulator of Ring1A/Ring1B-dependent histone H2A monoubiquitylation (1-3). Ring1A and Ring1B proteins function as the catalytic core subunits of polycomb repressor complex 1 (PRC1), which acts to repress gene expression in part through monoubiquitination of histone H2A on Lys119 (4). By binding to both the YY1 DNA-binding transcription factor and Ring1A/Ring1B, RYPB is able to recruit the PRC1 complex to target loci independent of prior tri-methylation of histone H3 Lys27 by the EZH2-dependent PRC2 complex (2,3). RYBP also binds monoubiquitinated H2A Lys119 and may act to stabilize or spread binding of PRC1 across large domains of repressed chromatin (5). In addition, RYBP directly stimulates the ubiquitination activity of Ring1A/Ring1B and is required for proper differentiation of stem cells along multiple cell lineages (2,3,6,7). RYBP has also been shown to bind MDM2 and block ubiquitination and degradation of p53, leading to cell cycle arrest and apoptosis in response to DNA damage (8). Many studies demonstrate that RYBP functions as a tumor suppressor protein. RYBP expression is decreased in multiple cancers, including non-small cell lung cancer, hepatocellular carcinoma, and glioblastoma with decreased expression correlating with metastasis and poor prognosis (8-11).

Background References

- García, E. et al. (1999) *EMBO J* 18, 3404-18.
- Tavares, L. et al. (2012) *Cell* 148, 664-78.
- Rose, N.R. et al. (2016) *Elife* 5, e18591.
- Cao, R. et al. (2005) *Mol Cell* 20, 845-54.
- Arrigoni, R. et al. (2006) *FEBS Lett* 580, 6233-41.
- Kovacs, G. et al. (2016) *Stem Cells Int* 2016, 4034620.
- Ujhelyi, O. et al. (2015) *Stem Cells Dev* 24, 2193-205.
- Chen, D. et al. (2009) *EMBO Rep* 10, 166-72.
- Voruganti, S. et al. (2015) *Cancer Lett* 369, 386-95.
- Wang, W. et al. (2014) *Oncotarget* 5, 11604-19.
- Li, G. et al. (2013) *PLoS One* 8, e80970.

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

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat **Mk:** Monkey

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 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.