

Securin (D2B6O) 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	Endogenous	25	Rabbit IgG	#O95997	9232

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

Securin (D2B6O) Rabbit mAb recognizes endogenous levels of total securin protein. Based on western blot of overexpressed proteins, this antibody will also recognize securin 2 (PTTG2) to a lesser extent.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Val19 of human securin (PTTG1) protein.

Background

Securin is a regulatory protein that contributes to mitotic checkpoint control, p53 activity, DNA repair, and cell migration. The securin protein prevents premature separation of sister chromatids by inhibiting the protease separase, which cleaves the cohesin complex at the onset of anaphase to allow for sister chromatid segregation (1,2). In mouse oocytes, securin regulates cyclin B stability and G2/M transition (3). Securin negatively affects the transcriptional activity of p53, preventing p53-regulated apoptosis (4). Research studies indicate that securin plays a role in microtubule nucleation, cell polarization, and cell migration (5). Additional research indicates that securin expression may be useful as a biomarker for human breast cancer (6-8). The pituitary tumor-transforming gene 1 (*PTTG1*) encodes for securin protein, while the highly homologous securin 2 protein is transcribed from the related *PTTG2* gene. Securin 2 (PTTG2) protein lacks the ability to inhibit separase activity and may function primarily in cell adhesion and migration (9,10).

Background References

1. Yanagida, M. (2005) *Philos Trans R Soc Lond B Biol Sci* 360, 609-21.
2. Wirth, K.G. et al. (2006) *J Cell Biol* 172, 847-60.
3. Marangos, P. and Carroll, J. (2008) *Nat Cell Biol* 10, 445-51.
4. Bernal, J.A. et al. (2002) *Nat Genet* 32, 306-11.
5. Moreno-Mateos, M.A. et al. (2011) *Mol Biol Cell* 22, 4302-11.
6. Talvinen, K. et al. (2013) *APMIS* 121, 945-53.
7. Talvinen, K. et al. (2009) *Br J Cancer* 101, 1005-10.
8. Ogbagabriel, S. et al. (2005) *Mod Pathol* 18, 985-90.
9. Han, X. and Poon, R.Y. (2013) *Mol Cell Biol* 33, 3400-15.
10. Méndez-Vidal, C. et al. (2013) *Cell Death Dis* 4, e530.

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

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human

Trademarks and Patents

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

XP is a registered 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.