



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

#7433 Store at -20C

CAND1 Antibody

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

Applications: W, IP	Reactivity: H M R Mk	Sensitivity: Endogenous	MW (kDa): 130	Source/Isotype: Rabbit	UniProt ID: #Q86VP6	Entrez-Gene Id: 55832
-------------------------------	--------------------------------	-----------------------------------	-------------------------	----------------------------------	-------------------------------	---------------------------------

Product Usage Information

Application

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:50

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

CAND1 Antibody recognizes endogenous levels of total CAND1 protein. This antibody may cross-react with CAND2.

Species predicted to react based on 100% sequence homology

Bovine, Dog

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Asn610 of human CAND1 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Cullin-associated and neddylation-dissociated (CAND1)/TIP120A is a protein containing multiple HEAT repeats. It functions, in part, as an inhibitor of multiple cullin-RING ubiquitin ligases (CRLs) via binding to cullin-RBX complexes that are both unconjugated to NEDD8 and lack association with substrate recognition subunits (1-3). Indeed, CAND1 has been shown to bind all cullin family members in human cells and analysis of the crystal structure of human CAND1 bound to the CUL1-RBX1 complex suggests that CAND1 inhibits the activity of CRLs by sterically blocking both the substrate recognition subunit binding site and the NEDD8 conjugation site (1,3,4). Conversely, CAND1 binding to cullin-RBX complexes is incompatible with neddylation as NEDD8 conjugated to cullins blocks CAND1 binding, suggesting that CAND1 binds to cullins only after the COP9 signalosome has catalyzed cullin deneddylation. Through its ability to negatively regulate CRL assembly, CAND1 plays an integral part in facilitating CRL activation cycles that allow CRLs to utilize distinct substrate recognition subunits and protects these subunits from undergoing ubiquitin-dependent degradation (5-7).

Background References

1. Liu, J. et al. (2002) *Mol Cell* 10, 1511-8.
2. Zheng, J. et al. (2002) *Mol Cell* 10, 1519-26.
3. Min, K.W. et al. (2003) *J Biol Chem* 278, 15905-10.
4. Goldenberg, S.J. et al. (2004) *Cell* 119, 517-28.
5. Wee, S. et al. (2005) *Nat Cell Biol* 7, 387-91.
6. Wu, J.T. et al. (2005) *Nat Cell Biol* 7, 1014-20.
7. Cope, G.A. and Deshaies, R.J. (2006) *BMC Biochem* 7, 1.

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 **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.

Orders: 877-616-CELL (2355) • orders@cellsignal.com • Support: 877-678-TECH (8324) • info@cellsignal.com • Web: cellsignal.com
For Research Use Only. Not for Use in Diagnostic Procedures.