Revision 1

Store at -20C

#12541

Sharpin (D4P5B) Rabbit mAb

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/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H Mk	Endogenous	43	Rabbit IgG	#Q9H0F6	81858

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:50

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

Sharpin (D4P5B) Rabbit mAb recognizes endogenous levels of total Sharpin protein. This antibody does not cross-react with HOIL-1/RBCK1.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro313 of human Sharpin protein.

Background

Shank-associated RH domain-interacting protein (*Sharpin*), also known as *SIPL1*, is a highly conserved gene among many mammalian species and is ubiquitously expressed in various types of cells and tissues. Sharpin harbors multiple functional motifs including an amino terminal coiled-coil (CC) domain, which has been shown to mediate the interaction between Sharpin and the scaffold protein SHANK (1). The other two domains, ubiquitin-like domain (UBL) and NPL4 zinc finger domain (NZF), facilitate ubiquitin-mediated protein recognition and degradation (2). Recent studies have shown that both UBL and NZF domains are essential for Sharpin to exert its function in part through ubiquitin-mediated mechanisms (3-5). Although Sharpin was initially identified as a scaffold protein within the postsynaptic density of neurons (1), recent studies have identified Sharpin as a novel modulator of immune and inflammatory diseases. An emerging mechanistic model suggests that Sharpin functions as an important adaptor component of the Linear Ubiquitin Chain Assembly Complex (LUBAC) that modulates activation of the canonical NF-κB signaling pathway (3,4,6,7), thereby regulating cell survival and apoptosis, cytokine production, and lymphoid tissue development. Indeed, mice with spontaneous mutations in the *Sharpin* gene develop chronic proliferative dermatitis that is characterized by eosinophilic inflammation of the skin and dysregulated lymphoid tissue development (8).

Background References

1. Lim, S. et al. (2001) *Mol Cell Neurosci* 17, 385-97.
2. Grabbe, C. and Dikic, I. (2009) *Chem Rev* 109, 1481-94.
3. Ikeda, F. et al. (2011) *Nature* 471, 637-41.
4. Tokunaga, F. et al. (2011) *Nature* 471, 633-6.
5. Iwai, K. (2011) *Cell Cycle* 10, 3095-104.
6. Gerlach, B. et al. (2011) *Nature* 471, 591-6.
7. Tokunaga, F. et al. (2009) *Nat Cell Biol* 11, 123-32.
8. Seymour, R.E. et al. (2007) *Genes Immun* 8, 416-21.

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 **Mk:** Monkey

Trademarks and Patents

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.