Revision 1

Store at -20C

#5277

Phospho-LCP1 (Tyr28) 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/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H	Endogenous	70	Rabbit	#P13796	3936

Product Usage Information

Application	Dilution
Western Blotting	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

Phospho-LCP1 (Tyr28) Antibody detects endogenous levels of LCP1 protein only when phosphorylated on Tyr28.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr28 of human LCP1 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Highly conserved and widely expressed plastin proteins comprise a subset of actin-binding proteins that include proteins that promote actin bundling. Three plastins exhibiting differential expression are found in mammals and include L-plastin, T-plastin, and I-plastin. T-plastin (plastin-3) is found in cells of most solid tissues, while I-plastin (plastin-1) is expressed specifically in the kidney, colon, and small intestine (1-3). Research studies have shown that L-plastin (plastin-2) or lymphocyte cytosolic protein 1 (LCP1) is mainly expressed in hematopoietic cells and nonhematopoietic tumors, and increased expression correlates with metastatic progression in colon cancer cell lines (4). Investigators have found that overexpression of LCP1 in premetastatic cancer cell lines induces invasion and loss of E-cadherin expression, which is characteristic of metastatic cancer cell lines (5). LCP1 becomes phosphorylated at Ser5 upon stimulation through the T cell receptor/CD3 complex in association with the CD2 cell adhesion molecule or the CD28 receptor (6). Phosphorylation at Ser5 enhances the ability of LCP1 to bind to F-actin and increases cell motility (7,8).
Phosphorylation of LCP1 on Tyr28 was identified at Cell Signaling Technology (CST) using PhosphoScan®, CST's LC-MS/MS platform for phosphorylation site discovery as well as other publications using MS technology (9). Phosphorylation of LCP1 at Tyr28 is seen in many leukemic cell lines (9-12).

Background References

1. Lin, C.S. et al. (1993) *J Biol Chem* 268, 2781-92.
2. Lin, C.S. et al. (1994) *Mol Cell Biol* 14, 2457-67.
3. Delanote, V. et al. (2005) *Acta Pharmacol Sin* 26, 769-79.
4. Otsuka, M. et al. (2001) *Biochem Biophys Res Commun* 289, 876-81.
5. Foran, E. et al. (2006) *Int J Cancer* 118, 2098-104.
6. Wabnitz, G.H. et al. (2007) *Eur J Immunol* 37, 649-62.
7. Janji, B. et al. (2006) *J Cell Sci* 119, 1947-60.
8. Klemke, M. et al. (2007) *Int J Cancer* 120, 2590-9.
9. Rush, J. et al. (2005) *Nat Biotechnol* 23, 94-101.
10. Rikova, K. et al. (2007) *Cell* 131, 1190-203.
11. Gu, T.L. et al. (2007) *Blood* 110, 323-33.
12. Walters, D.K. et al. (2006) *Leuk Res* 30, 1097-104.

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

Cross-Reactivity Key

H: Human

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.