

#5350 Store at -20C

LCP1 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:	UniProt ID:	Entrez-Gene Id:
WB	H M	Endogenous	70	Rabbit	#P13796	3936

Product Usage Information

Application

Western Blotting

Dilution

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

LCP1 Antibody detects endogenous levels of total LCP1 protein.

Species predicted to react based on 100% sequence homology:

Rat

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Asp292 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).

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.

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

WB: Western Blotting

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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