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Store at -20C
#3588

LCP1 (D1C3) Rabbit mAb

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

Applications: W, IHC-P	Reactivity: H M	Sensitivity: Endogenous	MW (kDa): 70	Source/Isotype: Rabbit IgG	UniProt ID: #P13796	Entrez-Gene Id: 3936
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Product Usage Information

Application

Western Blotting
Immunohistochemistry (Paraffin)

Dilution

1:1000
1:400

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

LCP1 (D1C3) Rabbit mAb recognizes endogenous levels of total LCP1 protein.

Species predicted to react based on 100% sequence homology

Monkey

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Asp567 of human LCP1 protein.

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

- Lin, C.S. et al. (1993) *J Biol Chem* 268, 2781-92.
- Lin, C.S. et al. (1994) *Mol Cell Biol* 14, 2457-67.
- Delanote, V. et al. (2005) *Acta Pharmacol Sin* 26, 769-79.
- Otsuka, M. et al. (2001) *Biochem Biophys Res Commun* 289, 876-81.
- Foran, E. et al. (2006) *Int J Cancer* 118, 2098-104.
- Wabnitz, G.H. et al. (2007) *Eur J Immunol* 37, 649-62.
- Janji, B. et al. (2006) *J Cell Sci* 119, 1947-60.
- 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

W: Western Blotting **IHC-P:** Immunohistochemistry (Paraffin)

Cross-Reactivity Key

H: Human **M:** Mouse

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