

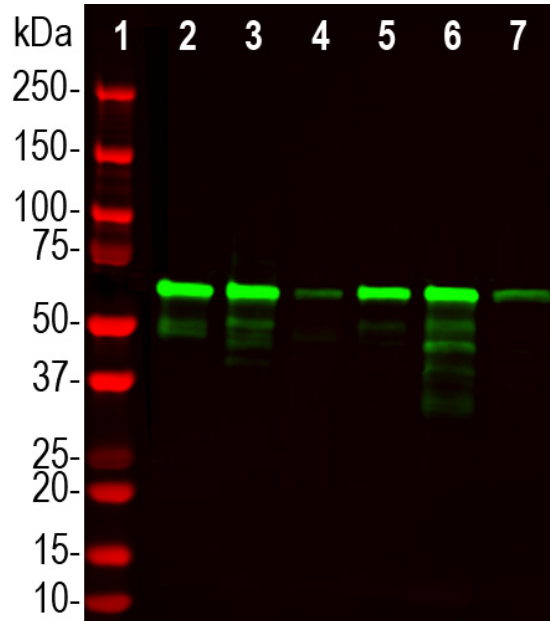
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HGNC Name: PLS1
UniProt: Q14651
RRID: Pending
Immunogen: Recombinant human L-plastin expressed in and purified from *E. coli*
Format: Purified antibody at 1mg/mL in 50% PBS, 50% glycerol plus 5mM NaN₃
Storage: Shipped on ice. Store at 4°C for short term, for longer term at -20°C. Avoid freeze / thaw cycles.
Recommended dilutions:
 WB: 1:1,000-1:2,000. ICC/IF: 1:1,000 IHC:

References:

1. Bretscher A and Weber K. Fimbrin, a new microfilament-associated protein present in microvilli and other cell surface structures. *J Cell Biol*. 1980 86:335-40. doi: 10.1083/jcb.86.1.335 (1980).
2. VDelanote V, Vandekerckhove J and Gettemans J. Plastins: versatile modulators of actin organization in (patho)physiological cellular processes. *Acta Pharm Sin* 26:769-779 (2005).
3. Shinomiya S. Plastin Family of Actin-Bundling Proteins: Its Functions in Leukocytes, Neurons, Intestines, and Cancer. *Int J Cell Biol Article ID* 213492, (2012).

Applications	Host	Isotype	Molecular Wt.	Species Cross-Reactivity
WB, ICC/IF, IHC	Mouse	IgG1 κ	70kDa	Hu, Rt, Ms



Western blot analysis of tissue lysates using mouse mAb to L-Plastin, MCA-5F101, dilution 1:2,000 in green: [1] protein molecular weight standard and extracts of [2] mouse lung, [3] mouse spleen, [4] mouse brain, [5] rat lung, [6] rat spleen and [7] rat brain. MCA-5F101 antibody reveals L-Plastin protein with apparent molecular weight of 70 kDa.

Background:

L-Plastin is member of the plastin family of proteins which includes two other proteins, I-plastin and T-plastin. I-plastin was originally discovered in the fimbria or brush border of the intestine localized in the actin containing microvilli (1). It was therefore originally named fimbrin and later found in many other tissues in association with actin, most notably in the stereocilia important for hearing and proprioception. The plastin proteins all have the ability to bind actin and Calcium ions, containing two **EF hand** sites close to the N-terminus and 4 **calponin homology domains** towards the C-terminus. EF hands are compact Calcium ion binding sites found in molecules such as parvalbumin, calmodulin and many others. Pairs of calponin homology domains form binding sites for actin molecules and are found in α-actinin and many other cytoskeletal proteins. The MCA-5F101 antibody was made against a recombinant full length human I-Plastin sequence in [NP_001138791.1](#) expressed in and purified from *E. coli*. The antibody works well on western blots of various tissues, cleanly producing the appropriate sized band.

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Abbreviation Key:

mAb—Monoclonal Antibody pAb—Polyclonal Antibody WB—Western Blot IF—Immunofluorescence ICC—Immunocytochemistry
 IHC—Immunohistochemistry E—ELISA Hu—Human Mo—Monkey Do—Dog Rt—Rat Ms—Mouse Co—Cow Pi—Pig Ho—Horse Ch—Chicken
 Dr—*D. rerio* Dm—*D. melanogaster* Sm—*S. mutans* Ce—*C. elegans* Sc—*S. cerevisiae* Sa—*S. aureus* Ec—*E. coli*.