#9091 Store at -20°C

LAMP1 (D2D11) XP® Rabbit mAb

Cell Signaling TECHNOLOGY®

Orders ■ 877-616-CELL (2355)
orders@cellsignal.com
Support ■ 877-678-TECH (8324)
info@cellsignal.com
Web ■ www.cellsignal.com

rev. 07/28/17

For Research Use Only. Not For Use In Diagnostic Procedures.

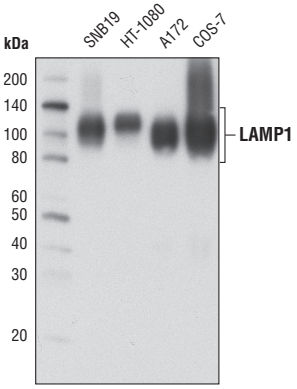
Entrez-Gene ID #3916
UniProt ID #P11279

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IP, IHC-P, IF-IC, F Endogenous	H, Mk	42 kDa (non-glycosylated), 90-120 kDa (glycosylated)	Rabbit IgG**

Background: Lysosome-associated membrane protein 1 and 2 (LAMP1 and LAMP2) are two abundant lysosomal membrane proteins (1,2). Both are transmembrane proteins and are heavily glycosylated at the amino-terminal luminal side of the lysosomal inner leaflet, which protects the proteins from proteolysis (3). The carboxy terminus of LAMP1 is exposed to the cytoplasm and contains a tyrosine sorting motif that targets LAMP to lysosomal membranes (4). LAMP1 and LAMP2 are 37% homologous in their protein sequences. Both LAMP1 and LAMP2 are involved in regulating lysosomal motility during lysosome-phagosome fusion and cholesterol trafficking (5,6).

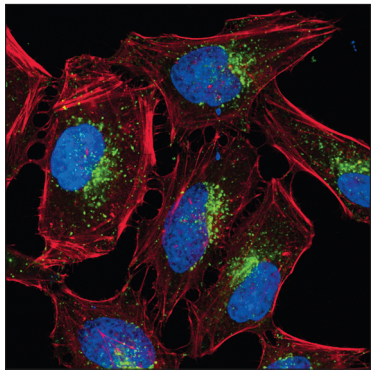
Specificity/Sensitivity: LAMP1 (D2D11) XP® Rabbit mAb recognizes endogenous levels of total LAMP1 protein.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a recombinant protein fragment of human LAMP1 protein.

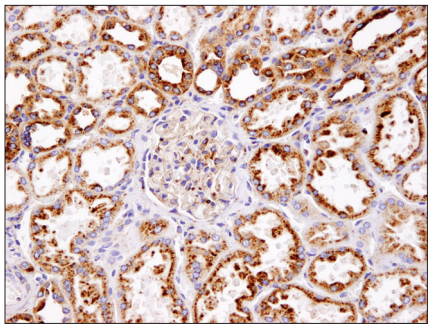


Western blot analysis of extracts from various cell lines using LAMP1 (D2D11) XP® Rabbit mAb.

HeLa



Confocal immunofluorescent analysis of HeLa cells using LAMP1 (D2D11) XP® Rabbit mAb (green). Actin filaments were labeled with DyLight™ 554 Phalloidin #13054 (red). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).



Immunohistochemical analysis of normal human kidney using LAMP1 (D2D11) XP® Rabbit mAb.

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.*

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunoprecipitation	1:100
Immunohistochemistry (Paraffin)	1:200†
Unmasking buffer:	Citrate
Antibody diluent:	SignalStain® Antibody Diluent #8112
Detection reagent:	SignalStain® Boost (HRP, Rabbit) #8114

†*Optimal IHC dilutions determined using SignalStain® Boost IHC Detection Reagent.*

Immunofluorescence (IF-IC)	1:200
IF Protocol:	Methanol Fixation Required
Flow Cytometry	1:50

For product specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

Background References:

(1) Eskelinen, E.L. et al. (2003) *Trends Cell Biol* 13, 137-45.

(2) Fukuda, M. (1991) *J Biol Chem* 266, 21327-30.

(3) Kundra, R. and Kornfeld, S. (1999) *J Biol Chem* 274, 31039-46.

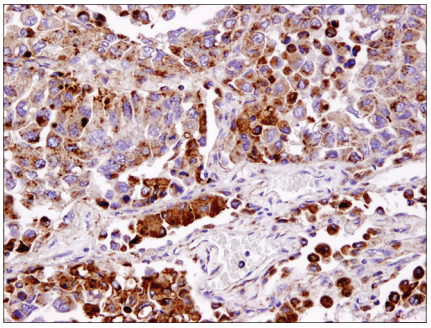
(4) Rohrer, J. et al. (1996) *J Cell Biol* 132, 565-76.

(5) Huynh, K.K. et al. (2007) *EMBO J* 26, 313-24.

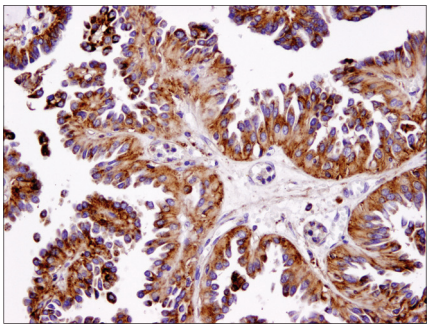
(6) Eskelinen, E.L. et al. (2004) *Mol Biol Cell* 15, 3132-45.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

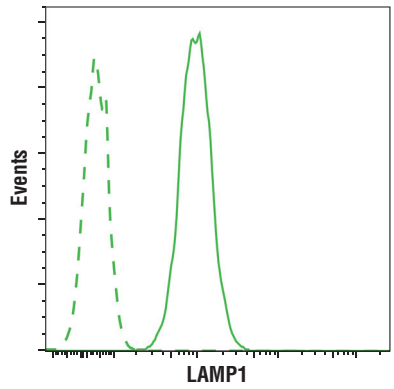
Applications Key: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide
Species Cross-Reactivity Key: **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **Mi**—mink **C**—chicken **Dm**—D. melanogaster **X**—Xenopus **Z**—zebrafish **B**—bovine **Dg**—dog **Pg**—pig **Sc**—S. cerevisiae **Ce**—C. elegans **Hr**—horse **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.



Immunohistochemical analysis of human lung carcinoma using LAMP1 (D2D11) XP® Rabbit mAb.



Immunohistochemical analysis of human ovarian serous cystadenoma using LAMP1 (D2D11) XP® Rabbit mAb.



Flow cytometric analysis of Jurkat cells using LAMP1 (D2D11) XP® Rabbit mAb (solid line) compared to concentration-matched Rabbit (DA1E) mAb IgG XP® Isotype Control #3900 (dashed line). Anti-rabbit IgG (H+L), $F(ab')_2$ Fragment (Alexa Fluor® 488 Conjugate) #4412 was used as a secondary antibody.