

#3843 Store at -20°C

Phospho-AP2M1 (Thr156) Antibody



✓ 100 µl
(10 western blots)

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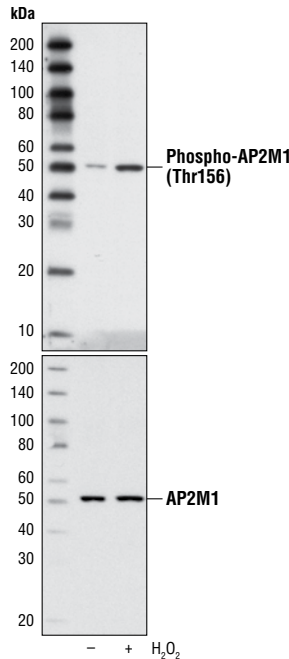
This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W Endogenous	H, (M, R, Mk)	50 kDa	Rabbit**

Background: The AP-2 coat assembly protein complex is an important component of clathrin coat pits involved in receptor-mediated endocytosis at the plasma membrane (1-3). Each AP-2 heterotetramer is composed of α , β , μ and σ protein subunits. The 50 kDa μ subunit (AP-2 μ , AP2M1) is located at the core of the AP-2 complex and mediates the interaction between the cargo protein and the clathrin coated pit (1-4). The carboxy-terminal AP2M1 region recognizes the tyrosine-based, endocytotic sorting motif YXX ϕ found in cargo proteins and helps to bring the cargo protein to the clathrin-coated pit. Non-canonical, tyrosine-based endocytotic sorting signals can also promote interaction between cargo proteins and AP2M1 (5,6). AP2M1 plays an essential role in molecular signaling as it couples receptor-mediated endocytosis and pathways involving membrane receptors (7-9), matrix metalloproteinases (10) and ion channel proteins (11). Phosphorylation of specific AP2M1 residues and binding of lipids to this adaptor protein can regulate AP2M1 activity (12,13). Phosphorylation of AP2M1 at Thr156 by adaptor-associated kinase 1 (AAK1) stimulates affinity binding of AP2M1 to cargo protein signals (14).

Specificity/Sensitivity: Phospho-AP2M1 (Thr156) Antibody detects endogenous levels of AP2M1 protein only when phosphorylated at Thr156.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Thr156 of human AP2M1. Antibodies are purified by protein A and peptide affinity chromatography.



Western blot analysis of extracts from HeLa cells, serum-starved overnight and either left untreated or H₂O₂-treated (4 mM, 30 minutes), using Phospho-AP2M1 (Thr156) Antibody (upper) or an AP2M1 rabbit mAb (lower).

Entrez-Gene ID #1173
Swiss-Prot Acc. #Q96CW1

Storage: Supplied in 10mM HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. 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

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

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

Background References:

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- (12) Höning, S. et al. (2005) *Mol Cell* 18, 519-31.
- (13) Olusanya, O. et al. (2001) *Curr Biol* 11, 896-900.
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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.

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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.