Revision 1

Phospho-AP2M1 (Thr156) (D4F3) Rabbit mAb

#7399 Store at -20C

Cell Signaling TECHNOLOGY®

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP, IF-IC	H	Endogenous	50	Rabbit IgG	#Q96CW1	1173

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:100
Immunofluorescence (Immunocytochemistry)	1:50

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

Phospho-AP2M1 (Thr156) (D4F3) Rabbit mAb recognizes endogenous levels of AP2M1 protein only when phosphorylated at Thr156.

Species predicted to react based on 100% sequence homology

Mouse, Rat, Monkey

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Thr156 of human AP2M1 protein.

Background

The AP-2 coat assembly protein complex is an important component of clathrin-coated 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-2µ, AP2M1) is located at the core of the AP-2 complex and mediates interaction between the cargo protein and the clathrin-coated pit (1-4). The carboxy-terminal AP2M1 region recognizes the tyrosine-based, endocytotic sorting motif YXXϕ 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).

Background References

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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 BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation **IF-IC:** Immunofluorescence (Immunocytochemistry)

Cross-Reactivity Key

H: Human

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