

Store at -20°C
#7399

Phospho-AP2M1 (Thr156) (D4F3) Rabbit mAb



Cell Signaling
TECHNOLOGY®

Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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

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

Product Usage Information

Application

Western Blotting
Immunoprecipitation
Immunofluorescence (Immunocytochemistry)

Dilution

1:1000
1:100
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-2 μ , 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 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).

Background References

- Kirchhausen, T. (2002) *Cell* 109, 413-6.
- Ohno, H. et al. (1995) *Science* 269, 1872-5.
- Traub, L.M. (2003) *J Cell Biol* 163, 203-8.
- Boll, W. et al. (1996) *EMBO J* 15, 5789-95.
- Royle, S.J. et al. (2002) *J Biol Chem* 277, 35378-85.
- Royle, S.J. et al. (2005) *J Cell Sci* 118, 3073-80.
- Chin, Y.R. and Horwitz, M.S. (2005) *J Virol* 79, 13606-17.
- Wernick, N.L. et al. (2005) *J Biol Chem* 280, 7309-16.
- Johannessen, L.E. et al. (2006) *Mol Cell Biol* 26, 389-401.
- Uekita, T. et al. (2001) *J Cell Biol* 155, 1345-56.
- Chen, Z. et al. (2006) *Am J Respir Cell Mol Biol* 35, 127-32.
- Höning, S. et al. (2005) *Mol Cell* 18, 519-31.
- Olusanya, O. et al. (2001) *Curr Biol* 11, 896-900.
- Conner, S.D. and Schmid, S.L. (2002) *J Cell Biol* 156, 921-9.

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

Applications Key

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

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **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
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

Trademarks and Patents

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.
All other trademarks are the property of their respective owners. Visit cellsignal.com/trademarks for more information.

Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.