Revision 1

Store at -20C

#3806

Phospho-Rictor (Thr1135) (D30A3) 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:
W	H M Mk	Endogenous	200	Rabbit IgG	#Q6R327	253260

Product Usage Information

Application	Dilution
Western Blotting	1:1000

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-Rictor (Thr1135) (D30A3) Rabbit mAb detects endogenous levels of rictor protein only when phosphorylated at Thr1135.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to the sequence surrounding Thr1135 of human Rictor protein.

Background

Cell growth is a fundamental biological process whereby cells accumulate mass and increase in size. The mammalian TOR (mTOR) pathway regulates growth by coordinating energy and nutrient signals with growth factor-derived signals (1). mTOR is a large protein kinase with two different complexes. One complex contains mTOR, GβL and raptor, which is a target of rapamycin. The other complex, insensitive to rapamycin, includes mTOR, GβL, Sin1, and rictor (1). The mTOR-rictor complex phosphorylates Ser473 of Akt/PKB *in vitro* (2). This phosphorylation is essential for full Akt/PKB activation. Furthermore, an siRNA knockdown of rictor inhibits Ser473 phosphorylation in 3T3-L1 adipocytes (3). This complex has also been shown to phosphorylate the rapamycin-resistant mutants of S6K1, another effector of mTOR (4).
Phosphorylation of Thr1135 on rictor was identified at Cell Signaling Technology (CST) using PhosphoScan®, CST's LC-MS/MS platform for phosphorylation site discovery (5). Additional research indicates that rictor is phosphorylated at Thr1135 by p70 S6K, which negatively regulates mTORC2 protein complex as part of a negative feedback mechanism controlling Akt activity (6-8).

Background References

1. Sarbassov, D.D. et al. (2004) *Curr. Biol.* 14, 1296-1302.
2. Sarbassov, D.D. et al. (2005) *Science* 307, 1098-1101.
3. Hresko, R.C. and Mueckler, M. (2005) *J. Biol. Chem.* 280, 40406-40416.
4. Ali, S.M. and Sabatini, D.M. (2005) *J. Biol. Chem.* 280, 19445-19448.
5. Rush, J. et al. (2005) *Nat Biotechnol* 23, 94-101.
6. Dibble, C.C. et al. (2009) *Mol Cell Biol* 29, 5657-70.
7. Julien, L.A. et al. (2010) *Mol Cell Biol* 30, 908-21.
8. Treins, C. et al. (2010) *Oncogene* 29, 1003-16.

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

Cross-Reactivity Key

H: Human **M:** Mouse **Mk:** Monkey

Trademarks and Patents

Limited Uses

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.