SANTA CRUZ BIOTECHNOLOGY, INC.

Rictor (H-11): sc-271081

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

FRAP is a large protein kinase that is the mammalian target of rapamycin, an immunosuppressant that blocks vessel restenosis and also has potential anticancer applications. Rapamycin-insensitive companion of FRAP, also designated Rictor, shares homology with pianissimo from *D. discoidieum*, STE20p from *S. pombe*, and AVO3p from *S. cerevisiae*. Rictor forms a complex with FRAP, which is important in cell growth regulation as it integrates growth factor and nutrient derived signals. The Rictor-FRAP complex plays a role in PKCα phosphorylation, directly phosphorylates Akt/PKB on Ser 473 *in vitro* and facilitates Thr 308 phosphorylation by PDK1. It also may function as a drug target in tumors that have lost expression of PTEN, a tumor suppressor that opposes activation of Akt/PKB.

CHROMOSOMAL LOCATION

Genetic locus: RICTOR (human) mapping to 5p13.1; Rictor (mouse) mapping to 15 A1.

SOURCE

Rictor (H-11) is a mouse monoclonal antibody raised against amino acids 20-297 mapping near the N-terminus of Rictor of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Rictor (H-11) is available conjugated to agarose (sc-271081 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-271081 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271081 PE), fluorescein (sc-271081 FITC), Alexa Fluor® 488 (sc-271081 AF488), Alexa Fluor® 546 (sc-271081 AF546), Alexa Fluor® 594 (sc-271081 AF594) or Alexa Fluor® 647 (sc-271081 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271081 AF680) or Alexa Fluor® 790 (sc-271081 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Rictor (H-11) is recommended for detection of Rictor of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Rictor (H-11) is also recommended for detection of Rictor in additional species, including canine.

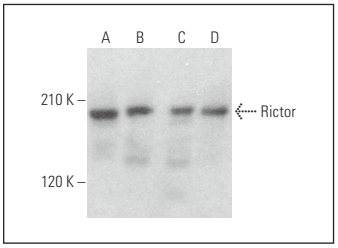
Suitable for use as control antibody for Rictor siRNA (h): sc-61478, Rictor siRNA (m): sc-61479, Rictor siRNA (r): sc-270141, Rictor shRNA Plasmid (h): sc-61478-SH, Rictor shRNA Plasmid (m): sc-61479-SH, Rictor shRNA Plasmid (r): sc-270141-SH, Rictor shRNA (h) Lentiviral Particles: sc-61478-V, Rictor shRNA (m) Lentiviral Particles: sc-61479-V and Rictor shRNA (r) Lentiviral Particles: sc-270141-V.

Molecular Weight of Rictor: 200 kDa.

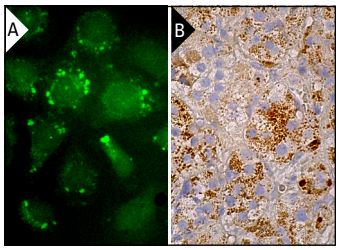
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



Rictor (H-11): sc-271081. Western blot analysis of Rictor expression in A-431 (**A**), A549 (**B**) and F9 (**C**) whole cell lysates and human testis tissue extract (**D**).



Rictor (H-11): sc-271081. Immunofluorescence staining of formalin-fixed HeLa cells showing cytoplasmic vesicles localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human adrenal gland tissue showing cytoplasmic staining of glandular cells (**B**).

SELECT PRODUCT CITATIONS

1. Aslan, J.E., et al. 2011. S6K1 and mTOR regulate Rac1-driven platelet activation and aggregation. Blood 118: 3129-3136.
2. Zhang, D., et al. 2014. Liver clock protein BMAL1 promotes *de novo* lipogenesis through Insulin-mTORC2-Akt signaling. J. Biol. Chem. 289: 25925-25935.
3. Koo, J., et al. 2015. mTOR complex 2 stabilizes Mcl-1 protein by suppressing its glycogen synthase kinase 3-dependent and SCF-FBXW7-mediated degradation. Mol. Cell. Biol. 35: 2344-2355.
4. Cui, Y., et al. 2016. MicroRNA-153 targets mTORC2 component Rictor to inhibit glioma cells. PLoS ONE 11: e0156915.
5. Amara, S., et al. 2017. Critical role of SIK3 in mediating high salt and IL-17 synergy leading to breast cancer cell proliferation. PLoS ONE 12: e0180097.
6. Katreddy, R.R., et al. 2018. Targeted reduction of the EGFR protein, but not inhibition of its kinase activity, induces mitophagy and death of cancer cells through activation of mTORC2 and Akt. Oncogenesis 7: 5.
7. Xu, Z.X., et al. 2019. Caspase-2 promotes AMPA receptor internalization and cognitive flexibility via mTORC2-Akt-GSK3β signaling. Nat. Commun. 10: 3622.
8. Barbero, G., et al. 2019. An autocrine Wnt5a loop promotes NFκB pathway activation and cytokine/chemokine secretion in melanoma. Cells 8: 1060.
9. Pergolizzi, B., et al. 2019. Two conserved glycine residues in mammalian and *Dictyostelium* Rictor are required for mTORC2 activity and integrity. J. Cell Sci. 132: jcs236505.

RESEARCH USE

For research use only, not for use in diagnostic procedures.