

p-Raptor (Ser 863): sc-130214

BACKGROUND

Regulatory associated protein of FRAP, also designated Raptor, is a binding partner for mammalian target of rapamycin kinase (FRAP), and is essential for FRAP signalling *in vivo*. Raptor binding to FRAP is critical for FRAP-catalysed substrate phosphorylation of 4E-BP1. The raptor-FRAP complex is nutrient-sensitive and is important for a mechanism by which cells coordinate cell growth and size with changing environmental conditions. Raptor serves as a negative regulator of FRAP kinase activity under nutrient-deprived conditions and is an important component in the FRAP pathway. Raptor is highly expressed in skeletal muscle and to a lesser extent in brain, kidney, lung and placenta.

REFERENCES

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- Oshiro, N., et al. 2004. Dissociation of Raptor from mTOR is a mechanism of Rapamycin-induced inhibition of mTOR function. *Genes Cells* 9: 359-366.
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- Sarbassov, D.D., et al. 2005. Redox regulation of the nutrient-sensitive Raptor-mTOR pathway and complex. *J. Biol. Chem.* 280: 39505-39509.
- Gwinn, D.M., et al. 2008. AMPK phosphorylation of Raptor mediates a metabolic checkpoint. *Mol. Cell* 30: 214-226.

CHROMOSOMAL LOCATION

Genetic locus: RPTOR (human) mapping to 17q25.3.

SOURCE

p-Raptor (Ser 863) is a rabbit polyclonal antibody raised against a short amino acid sequence containing Ser 863 phosphorylated Raptor of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

p-Raptor (Ser 863) is recommended for detection of Ser 863 phosphorylated Raptor of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Raptor siRNA (h): sc-44069, Raptor shRNA Plasmid (h): sc-44069-SH and Raptor shRNA (h) Lentiviral Particles: sc-44069-V.

Molecular Weight of p-Raptor: 150 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto B Blocking Reagent: sc-2335 (use 50 mM NaF, sc-24988, as diluent), Western Blotting Luminol Reagent: sc-2048 and Lambda Phosphatase: sc-200312A. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

SELECT PRODUCT CITATIONS

- Tang, Q., et al. 2013. Resveratrol-induced apoptosis is enhanced by inhibition of autophagy in esophageal squamous cell carcinoma. *Cancer Lett.* 36: 325-337.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.