

Repac (E-15): sc-243963

BACKGROUND

Members of the RAS subfamily of GTPases function in signal transduction as GTP/GDP-regulated switches that cycle between inactive GDP- and active GTP-bound states. Guanine nucleotide exchange factors (GEFs), such as Repac, serve as RAS activators by promoting acquisition of GTP to maintain the active GTP-bound state and are the key link between cell surface receptors and RAS activation. Repac, also known as Rap guanine nucleotide exchange factor 5 (RAPGEF5), is a 580 amino acid protein that is expressed in brain and testis, with weaker expression in heart, placenta, lung, pancreas and small intestine. Existing as two alternatively spliced isoforms, the Repac gene is conserved in bovine, mouse and rat. The gene that encodes Repac maps to human chromosome 7p15.3, with high expression of this region linking to positive response to erlotinib therapy for those with non-small-cell lung cancer.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: RAPGEF5 (human) mapping to 7p15.3; Rapgef5 (mouse) mapping to 12 F2.

SOURCE

Repac (E-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Repac of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-243963 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Repac (E-15) is recommended for detection of RAPGEF5 of mouse origin and Repac 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)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with RAPGEF6 or RAPGEFL1.

Repac (E-15) is also recommended for detection of Repac in additional species, including equine, canine and porcine.

Suitable for use as control antibody for Repac siRNA (h): sc-89700, RAPGEF5 siRNA (m): sc-152703, Repac shRNA Plasmid (h): sc-89700-SH, RAPGEF5 shRNA Plasmid (m): sc-152703-SH, Repac shRNA (h) Lentiviral Particles: sc-89700-V and RAPGEF5 shRNA (m) Lentiviral Particles: sc-152703-V.

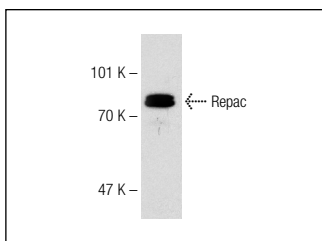
Molecular Weight of Repac isoforms: 68/52 kDa.

Positive Controls: mouse brain extract: sc-2253.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Repac (E-15): sc-243963. Western blot analysis of Repac expression in mouse brain tissue extract.

STORAGE

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

RESEARCH USE

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