

Ran BP-4 (T-19): sc-55283

BACKGROUND

The small Ras-related protein Ran, also called TC4, is a nuclear localized GTPase implicated in a diverse array of cellular processes including DNA replication, entry into and exit from mitosis, and the transport of RNA and proteins through the nuclear pore complex. Like Ras, active Ran GTP and inactive Ran GDP levels are tightly regulated by guanine nucleotide exchange factors (GEFs) and GTPase activating proteins (GAPs). The abundant GEF, RCC1 (regulator of chromosome condensation 1), increases the rate at which Ran exchanges GDP for GTP. Ran BP-4 (Ran binding protein 4), also known as importin 4, is a nuclear transport receptor and chaperone for Ribosomal Protein S3A. It mediates active transport through nuclear pore complexes. It is also responsible for ligand-independent nuclear translocation of VDR (vitamin D receptor).

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: IPO4 (human) mapping to 14q12.

SOURCE

Ran BP-4 (T-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Ran BP-4 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-55283 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Ran BP-4 (T-19) is recommended for detection of Ran BP-4 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).

Ran BP-4 (T-19) is also recommended for detection of Ran BP-4 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for Ran BP-4 siRNA (h): sc-62922, Ran BP-4 shRNA Plasmid (h): sc-62922-SH and Ran BP-4 shRNA (h) Lentiviral Particles: sc-62922-V.

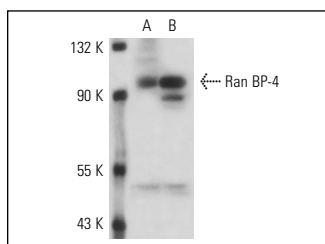
Molecular Weight of Ran BP-4: 119 kDa.

Positive Controls: SK-N-MC nuclear extract: sc-2154 or A549 cell lysate: sc-2413.

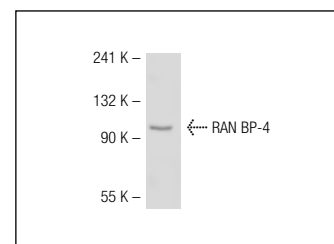
RECOMMENDED SECONDARY REAGENTS

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



Ran BP-4 (T-19): sc-55283. Western blot analysis of Ran BP-4 expression in SK-N-MC (A) and A549 (B) nuclear extracts.



Ran BP-4 (T-19): sc-55283. Western blot analysis of Ran BP-4 expression in A549 whole cell lysate.

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.