

# GARNL4 (P-14): sc-167957

## BACKGROUND

The Rap family of small GTPases is closely related to Ras and may function as an antagonist to the Ras signaling pathway by trapping Ras effectors in an inactive complex. Similar to other guanine-binding proteins (such as the heterotrimeric G proteins), the Ras proteins cycle between an active guanine-triphosphate (GTP) bound form and an inactive guanosine-diphosphate (GDP) bound form. The weak intrinsic GTPase activity of Ras proteins is greatly enhanced by the action of GTPase-activating proteins (GAPs). GARNL4 (GTPase-activating Rap/Ran-GAP domain-like protein 4), also known as RAP1GA3 or RAP1GAP2, is a 730 amino acid cytoplasmic and perinuclear protein that contains one Rap-GAP domain. GARNL4 is considered a GTPase activator for the nuclear Ras-related regulatory protein Rap 1A, converting it to the putatively inactive GDP-bound state. Existing as three alternatively spliced isoforms, GARNL4 is expressed in lymphocytes, heart, testis and pancreas. Isoforms 1 and 2 are expressed in platelets with isoform 2 being the predominant form.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: RAP1GAP2 (human) mapping to 17p13.3; Rap1gap2 (mouse) mapping to 11 B5.

## SOURCE

GARNL4 (P-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of GARNL4 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-167957 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

GARNL4 (P-14) is recommended for detection of GARNL4 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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 GARNL1 or GARNL3.

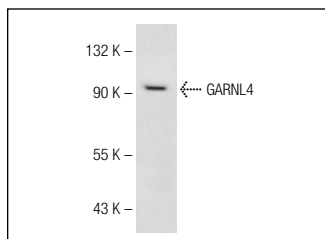
GARNL4 (P-14) is also recommended for detection of GARNL4 in additional species, including equine and canine.

Suitable for use as control antibody for GARNL4 siRNA (h): sc-93575, GARNL4 siRNA (m): sc-145330, GARNL4 shRNA Plasmid (h): sc-93575-SH, GARNL4 shRNA Plasmid (m): sc-145330-SH, GARNL4 shRNA (h) Lentiviral Particles: sc-93575-V and GARNL4 shRNA (m) Lentiviral Particles: sc-145330-V.

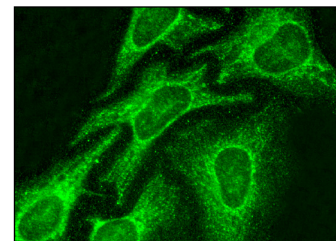
Molecular Weight of GARNL4 isoforms: 80/78 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

## DATA



GARNL4 (P-14): sc-167957. Western blot analysis of GARNL4 expression in Jurkat whole cell lysate.



GARNL4 (P-14): sc-167957. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

## 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.