

# PRKRIP1 (P-12): sc-163262

## BACKGROUND

PRKRIP1 (PRKR interacting protein 1, IL-11 inducible), also known as C114, is a 184 amino acid IL-11 induced protein that is expressed in brain, liver, testis and kidney. Localizing to the nucleus with highest expression in the nucleolus, PRKRIP1 contains an arginine-rich region and displays double-stranded RNA (dsRNA)-binding activity. Via its N-terminus, PRKRIP1 interacts with PKR (protein kinase RNA-activated) and functions to inhibit or negatively regulate PKR activity. The inhibition of PKR leads to the inhibition of eIF2 $\alpha$  phosphorylation. eIF2 $\alpha$ , a component of the eukaryotic initiation complex, functions to bind tRNA to the 40S ribosomal subunit (in a GTP-dependent manner), thereby initiating translation. The phosphorylation state of eIF2 $\alpha$  controls the rate of tRNA translation and, when phosphorylated, translation/protein synthesis is inhibited. This suggests that PRKRIP1, through its ability to inhibit eIF2 $\alpha$  phosphorylation and promote protein synthesis, may play a role in adipogenesis.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: PRKRIP1 (human) mapping to 7q22.1; Prkrip1 (mouse) mapping to 5 G2.

## STORAGE

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

## SOURCE

PRKRIP1 (P-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PRKRIP1 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-163262 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

PRKRIP1 (P-12) is recommended for detection of PRKRIP1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Suitable for use as control antibody for PRKRIP1 siRNA (h): sc-89660, PRKRIP1 siRNA (m): sc-152469, PRKRIP1 shRNA Plasmid (h): sc-89660-SH, PRKRIP1 shRNA Plasmid (m): sc-152469-SH, PRKRIP1 shRNA (h) Lentiviral Particles: sc-89660-V and PRKRIP1 shRNA (m) Lentiviral Particles: sc-152469-V.

Molecular Weight of PRKRIP1: 21 kDa.

Positive Controls: HeLa nuclear extract: sc-2120.

## 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) 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.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.