# SANTA CRUZ BIOTECHNOLOGY, INC.

# PACT (H-67): sc-292629



## BACKGROUND

Interferon-inducible double stranded RNA-dependent protein kinase activator, also designated PKR-associated protein X (RAX) or PACT, acts as a protein activator of PKR. Following stress such as serum starvation or peroxide or arsenite treatment, PACT associates with and activates PKR, resulting in eIF2 $\alpha$  activation (phosphorylation), consequent translation inhibition and apoptosis. PACT can directly interact with double stranded RNA (dsRNA), however, eIF2 $\alpha$  activation occurs only in the absence of dsRNA. The presence of certain growth factors may suppress the pro-apoptotic function of PACT. In both human and mouse cells, PACT is phosphorylated on Serine 18, and the phosphorylated form activates PKR following stress. PACT may exist as a heterodimer with eIF2 $\alpha$ , interacting through its DRBM domain.

## CHROMOSOMAL LOCATION

Genetic locus: PRKRA (human) mapping to 2q31.2; Prkra (mouse) mapping to 2 C3.

## SOURCE

PACT (H-67) is a rabbit polyclonal antibody raised against amino acids 73-139 mapping within an internal region of PACT of human origin.

## PRODUCT

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

## **STORAGE**

Store at 4° C, \*\*D0 NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

PACT (H-67) is recommended for detection of PACT (protein activator of the interferon-induced protein kinase) 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).

PACT (H-67) is also recommended for detection of PACT (protein activator of the interferon-induced protein kinase) in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PACT siRNA (h): sc-36175, PACT siRNA (m2): sc-63342, PACT shRNA Plasmid (h): sc-36175-SH, PACT shRNA Plasmid (m2): sc-63342-SH, PACT shRNA (h) Lentiviral Particles: sc-36175-V and PACT shRNA (m2) Lentiviral Particles: sc-63342-V.

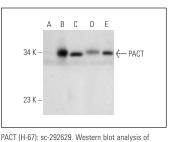
Molecular Weight of PACT: 34 kDa.

Positive Controls: PACT (m): 293T Lysate: sc-127290, HeLa whole cell lysate: sc-2200 or SJRH30 cell lysate: sc-2287.

#### **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<sup>™</sup> compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941.

#### DATA



 PACT expression in non-transfected 293T: sc-127220 (B), HeLa (C), PC-12 (D) and SJRH30 (E) whole cell lysates.

## **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.

#### MONOS Satisfation Guaranteed

Try PACT (D-4): sc-377103 or PACT (2830C1a): sc-81569, our highly recommended monoclonal aternatives to PACT (H-67).