SANTA CRUZ BIOTECHNOLOGY, INC.

# AKAP 95 (R-146): sc-10766

SANTA CRUZ BIOTECHNOLOGY
*The Power to Question*

## BACKGROUND

The type II cAMP-protein kinase (PKA) is a multifunctional kinase with a broad range of substrates. Specificity of PKA signaling is thought to be mediated by the compartmentalization of the kinase to specific sites within the cell. To maintain this specific localization, the R subunit (RII) of PKA interacts with specific RII-anchoring proteins. The family of RII-anchoring proteins has been designated A-kinase anchoring proteins (AKAP). AKAP 95, also known as AKAP 8, is a nuclear matrix protein predominantly expressed in liver, heart, pancreas, kidney and skeletal muscle. During mitosis, AKAP 95 is recruited to the chromosomes and plays an essential role in mitotic progression. Characteristic of its family, AKAP 95 participates in PKA signaling through an interaction with the RII regulatory subunit. In addition, AKAP 95 forms a complex with HA95 and HDAC3 and is required for the deacetylation of Histone H3 in mitosis.

## CHROMOSOMAL LOCATION

Genetic locus: AKAP8 (human) mapping to 19p13.12; Akap8 (mouse) mapping to 17 B1.

## SOURCE

AKAP 95 (R-146) is a rabbit polyclonal antibody raised against amino acids 542-687 of AKAP 95 of rat origin.

## PRODUCT

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

## 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.

## APPLICATIONS

AKAP 95 (R-146) is recommended for detection of AKAP 95 of mouse, rat and, to a lesser extent, 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), immunohistochemistry (including paraffin-embedded sections) (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 AKAP 95 siRNA (h): sc-29662, AKAP 95 siRNA (m): sc-29663, AKAP 95 shRNA Plasmid (h): sc-29662-SH, AKAP 95 shRNA Plasmid (m): sc-29663-SH, AKAP 95 shRNA (h) Lentiviral Particles: sc-29662-V and AKAP 95 shRNA (m) Lentiviral Particles: sc-29663-V.

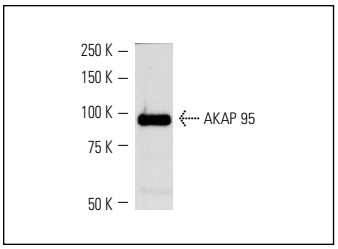
Molecular Weight of AKAP 95: 95 kDa.

Positive Controls: 3611-RF whole cell lysate: sc-2215 or mouse liver extract: sc-2256.

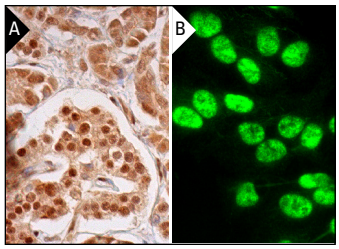
## RECOMMENDED SECONDARY REAGENTS

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™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 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™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

## DATA




AKAP 95 (R-146): sc-10766. Western blot analysis of AKAP 95 expression in 3611-RF whole cell lysate.




AKAP 95 (R-146): sc-10766. Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing nuclear and cytoplasmic staining of exocrine glandular cells and Islets of Langerhans (**A**). Immunofluorescence staining of formalin-fixed HepG2 cells showing nuclear localization (**B**).

## SELECT PRODUCT CITATIONS

1. MacDougall, M.W., et al. 2003. Human myometrial quiescence and activation during gestation and parturition involve dramatic changes in expression and activity of particulate type II (RII $\alpha$) protein kinase A holoenzyme. J. Clin. Endocrinol. Metab. 88: 2194-2205.

## PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.