SANTA CRUZ BIOTECHNOLOGY, INC.

# PEA-15 (H-80): sc-28255

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

PEA-15 (phosphoprotein enriched in astrocytes) exists in an non-phosphorylated form (N), and two phosphorylated forms, Pa and Pb. PEA-15 is an endogenous substrate for PKC, which mediates the transition from Pa to Pb. The level of PEA-15 phosphorylation changes upon depolymerization or stabilization of tubulins, indicating that PEA-15 co-localizes with microtubules. The first 80 amino acids of PEA-15 correspond to the death effector domain (DED), which is a domain found in proteins that regulate apoptotic signaling pathways. The DED domain is necessary for PEA-15 to block Ras suppression. Although PEA-15 is predominantly expressed in the central nervous system, low levels of PEA-15 are expressed in liver and kidney, and higher levels in muscle. PEA-15 is also referred to as PED, phosphoprotein enriched in diabetes, for its elevated expression in type 2 diabetic patients.

## CHROMOSOMAL LOCATION

Genetic locus: PEA15 (human) mapping to 1q23.2; Pea15a (mouse) mapping to 1 H3.

## SOURCE

PEA-15 (H-80) is a rabbit polyclonal antibody raised against amino acids 51-130 mapping at the C-terminus of PEA-15 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.

## 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

PEA-15 (H-80) is recommended for detection of PEA-15 of mouse, rat and 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).

PEA-15 (H-80) is also recommended for detection of PEA-15 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PEA-15 siRNA (h): sc-37485, PEA-15 siRNA (m): sc-37486, PEA-15 shRNA Plasmid (h): sc-37485-SH, PEA-15 shRNA Plasmid (m): sc-37486-SH, PEA-15 shRNA (h) Lentiviral Particles: sc-37485-V and PEA-15 shRNA (m) Lentiviral Particles: sc-37486-V.

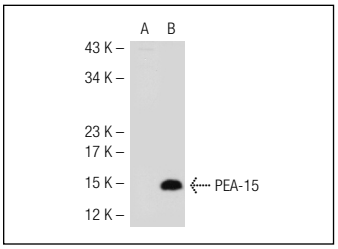
Molecular Weight of PEA-15: 15 kDa.

Positive Controls: U-87 MG cell lysate: sc-2411 or PEA-15 (m): 293T Lysate: sc-122478.

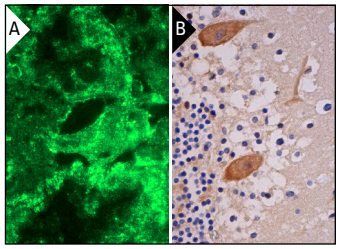
## RECOMMENDED SECONDARY REAGENTS

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




PEA-15 (H-80): sc-28255. Western blot analysis of PEA-15 expression in non-transfected: sc-117752 (**A**) and mouse PEA-15 transfected: sc-122478 (**B**) 293T whole cell lysates.




PEA-15 (H-80): sc-28255. Immunofluorescence staining of normal mouse kidney frozen section showing cytoplasmic staining (**A**). PEA-15 (H-80): sc-28255. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cerebellum tissue showing cytoplasmic and membrane staining of Purkinje cells (**B**).

## SELECT PRODUCT CITATIONS


1. Mourtada-Maarabouni, M., et al. 2008. Protein phosphatase 4 regulates apoptosis, proliferation and mutation rate of human cells. Biochim. Biophys. Acta 1783: 1490-1502.
2. Peacock, J.W., et al. 2009. PTEN loss promotes mitochondrially dependent type II Fas-induced apoptosis via PEA-15. Mol. Cell. Biol. 29: 1222-1234.
3. Mourtada-Maarabouni, M., et al. 2009. Protein phosphatase 4 regulates apoptosis in leukemic and primary human T-cells. Leuk. Res. 33: 1539-1551.


## PROTOCOLS

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