**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 colocalizes 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. 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 11q13.2. Molecular Weight of PEA-15: 15 kDa.

**SOURCE**

PEA-15 (H-3) is a mouse monoclonal 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, kappa light chain in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

PEA-15 (H-3) is available conjugated to agarose (sc-166678 AC), 500 µg/594 (sc-166678 AF594) or Alexa Fluor® 647 (sc-166678 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P), and FCM; to either Alexa Fluor® 546 (sc-166678 AF546), Alexa Fluor® 594 (sc-166678 AF594) or Alexa Fluor® 647 (sc-166678 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 580 (sc-166678 AF580) or Alexa Fluor® 790 (sc-166678 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**

PEA-15 (H-3) is recommended for detection of PEA-15 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PEA-15 (H-3) is also recommended for detection of PEA-15 in additional species, including equine, canine, bovine and porcine.


Molecular Weight of PEA-15: 15 kDa.

Positive Controls: U-87 MG cell lysate: sc-2411, T-47D cell lysate: sc-2293 or Neuro-2A whole cell lysate: sc-36185.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:

1. Western Blotting: use m-IgG1 BP-HRP: sc-516102 or m-IgG1 BP-HRP (Cruz Marker); sc-516102-CM (dilution range: 1:1000-1:10000). Cruz Marker™


**DATA**

PEA-15 (H-3): sc-166678. Western blot analysis of PEA-15 expression in T-47D (A), WI-38 (B), Neuro-2A (C), EOC 20 (D), CB (E) and H19-716F-IR (F) whole cell lysates.

PEA-15 (H-3): sc-166678. Western blot analysis of PEA-15 expression in U-87 MG (A), ARPE-19 (B), T-47D (C) and Neuro-2A (D) whole cell lysates. Detection reagent used: m-IgG1 BP-HRP: sc-516102.

**SELECT PRODUCT CITATIONS**


**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.

**PROTOCOLS**

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

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA.