# SANTA CRUZ BIOTECHNOLOGY, INC.

# 14-3-3 ε (A-14): sc-31961



# BACKGROUND

14-3-3 proteins regulate many cellular processes relevant to cancer biology, notably apoptosis, mitogenic signaling and cell-cycle checkpoints. Seven isoforms comprise this family of signaling intermediates, denoted 14-3-3  $\beta$ ,  $\gamma$ ,  $\varepsilon$ ,  $\zeta$ ,  $\eta$ ,  $\theta$  and  $\sigma$ . 14-3-3 proteins form dimers that present two binding sites for ligand proteins, thereby bringing together two proteins that may not otherwise associate. These ligands largely share a 14-3-3 consensus binding motif and exhibit serine/threonine phosphorylation. 14-3-3 proteins function in broad regulation of these ligand proteins, by cytoplasmic sequestration, occupation of interaction domains and import/export sequences, prevention of degradation, activation/repression of expression contributes to a vast array of pathogenic cellular activities.

# CHROMOSOMAL LOCATION

Genetic locus: YWHAE (human) mapping to 17p13.3; Ywhae (mouse) mapping to 11 B5.

## SOURCE

14-3-3  $\varepsilon$  (A-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of 14-3-3  $\varepsilon$  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-31961 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

# **STORAGE**

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

# **APPLICATIONS**

14-3-3  $\varepsilon$  (A-14) is recommended for detection of 14-3-3  $\varepsilon$  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).

14-3-3  $\varepsilon$  (A-14) is also recommended for detection of 14-3-3  $\varepsilon$  in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for 14-3-3  $\epsilon$  siRNA (h): sc-29588, 14-3-3  $\epsilon$  siRNA (m): sc-29589, 14-3-3  $\epsilon$  shRNA Plasmid (h): sc-29588-SH, 14-3-3  $\epsilon$  shRNA Plasmid (m): sc-29589-SH, 14-3-3  $\epsilon$  shRNA (h) Lentiviral Particles: sc-29588-V and 14-3-3  $\epsilon$  shRNA (m) Lentiviral Particles: sc-29589-V.

Molecular Weight of 14-3-3 ɛ: 30 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409, NIH/3T3 whole cell lysate: sc-2210 or Jurkat whole cell lysate: sc-2204.

### **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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

### DATA



14-3-3  $\epsilon$  (A-14): sc-31961. Western blot analysis of 14-3-3  $\epsilon$  expression in SW480 (A), NIH/3T3 (B), Jurkat (C), IMR-32 (D) and Daudi (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 14-3-3 ε (8C3): sc-23957 or 14-3-3 ε (F-3):

sc-393177, our highly recommended monoclonal aternatives to 14-3-3  $\epsilon$  (A-14). Also, for AC, HRP, FITC, PE, Alexa Fluor<sup>®</sup> 488 and Alexa Fluor<sup>®</sup> 647 conjugates, see **14-3-3**  $\epsilon$  (8C3): sc-23957.