SANTA CRUZ BIOTECHNOLOGY, INC.

14-3-3 ε (E-20): sc-31962



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 β , γ , ε , ζ , η , θ and σ . 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 enzymatic activity and facilitation of protein modification, and thus loss 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 ε (E-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of 14-3-3 ϵ of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-31962 P, (100 μ 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 ϵ (E-20) is recommended for detection of 14-3-3 ϵ of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

14-3-3 ϵ (E-20) is also recommended for detection of 14-3-3 ϵ in additional species, including equine, canine, bovine, porcine and avian.

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

Molecular Weight of 14-3-3 E: 30 kDa.

Positive Controls: KNRK whole cell lysate: sc-2214, NIH/3T3 whole cell lysate: sc-2210 or Caco-2 cell lysate: sc-2262.

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. 4) Immuno-histochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA





14-3-3 ϵ (E-20): sc-31962. Western blot analysis of 14-3-3 ϵ expression in 293T (A), KNRK (B), SW480 (C), Caco-2 (D) and NIH/3T3 (E) whole cell lysates.

14-3-3 ε (E-20): sc-31962. Immunoperoxidase staining of formalin fixed, paraffin-embedded human premenopausal uterus tissue showing cytoplasmic and nuclear staining of glandular cells and faint cytoplasmic and nuclear staining of cells in endometrial stroma.

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.



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 ϵ (E-20). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see 14-3-3 ϵ (8C3): sc-23957.