SANTA CRUZ BIOTECHNOLOGY, INC.

14-3-3 γ (C-16): sc-731

SANTA CRUZ BIOTECHNOLOGY
The Power to Question

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: YWHAG (human) mapping to 7q11.23, YWHAH (human) mapping to 22q12.3; Ywhag (mouse) mapping to 5 G2, Ywhah (mouse) mapping to 5 B1.

SOURCE

14-3-3 γ (C-16) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of 14-3-3 γ 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.

Blocking peptide available for competition studies, sc-731 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

14-3-3 γ (C-16) s recommended for detection of 14-3-3 γ and, to a lesser extent, 14-3-3 η 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).

14-3-3 γ (C-16) is also recommended for detection of 14-3-3 γ and, to a lesser extent, 14-3-3 η in additional species, including equine, canine, bovine, porcine and avian.

Molecular Weight of 14-3-3 γ: 33 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, K-562 whole cell lysate: sc-2203 or 14-3-3 η (m): 293T Lysate: sc-117813.

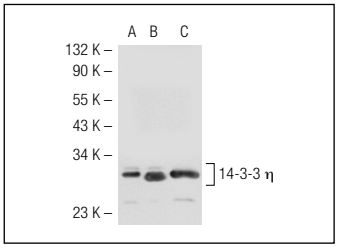
STORAGE

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

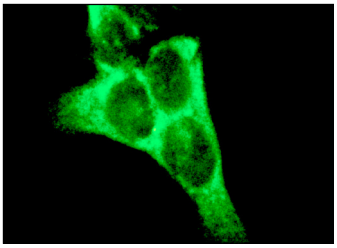
RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



14-3-3 γ (C-16): sc-731. Western blot analysis of 14-3-3 η expression in non-transfected 293T: sc-117752 (**A**), mouse 14-3-3 η transfected 293T: sc-117813 (**B**) and NIH/3T3 (**C**) whole cell lysates.



14-3-3 γ (C-16): sc-731. Immunofluorescence staining of methanol-fixed A-431 cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

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8. Zhong, J., et al. 2011. The interactome of a PTB domain-containing adapter protein, Odin, revealed by SILAC. J. Proteomics 74: 294-303.
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