# 14-3-3 ε (h): 293 Lysate: sc-110554



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  $\beta,\gamma,\epsilon,\zeta,\eta,\theta$  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 enzymatic activity and facilitation of protein modification, and thus, loss of expression contributes to a vast array of pathogenic cellular activities.

# **REFERENCES**

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- 7. Hermeking, H. 2003. The 14-3-3 cancer connection. Nat. Rev. Cancer 3: 931-943.
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# CHROMOSOMAL LOCATION

Genetic locus: YWHAE (human) mapping to 17p13.3.

#### **PRODUCT**

14-3-3  $\epsilon$  (h): 293 Lysate represents a lysate of human 14-3-3  $\epsilon$  transfected 293 cells and is provided as 100  $\mu g$  protein in 200  $\mu l$  SDS-PAGE buffer.

## **STORAGE**

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

#### **APPLICATIONS**

14-3-3  $\epsilon$  (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive 14-3-3  $\epsilon$  antibodies.

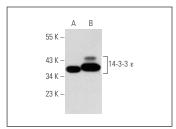
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

14-3-3  $\epsilon$  (8C3): sc-23957 is recommended as a positive control antibody for Western Blot analysis of enhanced human 14-3-3  $\epsilon$  expression in 14-3-3  $\epsilon$  transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

# **RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-lgG $\kappa$  BP-HRP: sc-516102 or m-lgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>TM</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

## **DATA**



14-3-3  $\epsilon$  (8C3): sc-23957. Western blot analysis of 14-3-3  $\epsilon$  expression in non-transfected: sc-110760 (**A**) and human 14-3-3  $\epsilon$  transfected: sc-110554 (**B**) 293 whole cell Ivsates.

# **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.

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