

# 14-3-3 $\theta$ (h4): 293T Lysate: sc-127856

## 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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## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

## CHROMOSOMAL LOCATION

Genetic locus: YWHAQ (human) mapping to 2p25.1.

## PRODUCT

14-3-3  $\theta$  (h4): 293T Lysate represents a lysate of human 14-3-3  $\theta$  transfected 293T cells and is provided as 100  $\mu$ g protein in 200  $\mu$ l SDS-PAGE buffer.

## APPLICATIONS

14-3-3  $\theta$  (h4): 293T Lysate is suitable as a Western Blotting positive control for human reactive 14-3-3  $\theta$  antibodies. Recommended use: 10-20  $\mu$ l per lane.

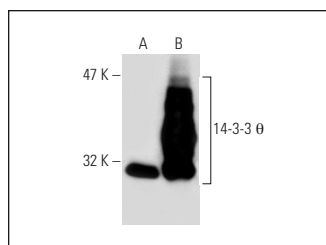
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

14-3-3  $\theta$  (5J20): sc-69720 is recommended as a positive control antibody for Western Blot analysis of enhanced human 14-3-3  $\theta$  expression in 14-3-3  $\theta$  transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

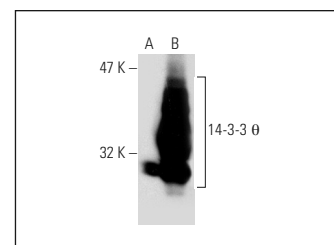
## RECOMMENDED SUPPORT REAGENTS

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

## DATA



14-3-3  $\theta$  (5J20): sc-69720. Western blot analysis of 14-3-3  $\theta$  expression in non-transfected: sc-117752 (A) and human 14-3-3  $\theta$  transfected: sc-127856 (B) 293T whole cell lysates.



14-3-3  $\theta$  (3B9): sc-59414. Western blot analysis of 14-3-3  $\theta$  expression in non-transfected: sc-117752 (A) and human 14-3-3  $\theta$  transfected: sc-127856 (B) 293T whole cell lysates.

## RESEARCH USE

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