

# CRHSP-24 (m): 293T Lysate: sc-119456

## BACKGROUND

CRHSP-24 (calcium-regulated heat-stable protein 24) is a serine phosphoprotein originally identified as a physiological substrate for the  $\text{Ca}^{2+}$ -calmodulin regulated protein phosphatase calcineurin (PP2B). A ubiquitously expressed protein, CRHSP-24 interacts with the STYX/dead phosphate protein in developing spermatids and is a paralog of the brain-specific mRNA-binding protein PIPPIN. It is thought to play a common role in calcium-mediated signal transduction resulting from phosphorylation on serine residues. CRHSP-24 is phosphorylated on Ser 52 by Akt-1 (PKB $\alpha$ ) in response to IGF-1, on Ser 52 by Akt-1 and RSK in response to EGF and on Ser 41 in the absence of IGF-1/EGF by a DYRK isoform or another proline-directed protein kinase.

## REFERENCES

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2. Goblewski, G.E., et al. 1998. Purification and characterization of a novel physiological substrate for calcineurin in mammalian cells. *J. Biol. Chem.* 273: 22738-22744.
3. Williams, J.A., et al. 1999. Intracellular regulatory mechanisms in pancreatic acinar cellular function. *Curr. Opin. Gastroenterol.* 15: 385.
4. Williams, J.A., et al. 2001. Intracellular signaling mechanisms activated by cholecystokinin-regulating synthesis and secretion of digestive enzymes in pancreatic acinar cells. *Annu. Rev. Physiol.* 63: 77-97.
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6. Schäfer, C., et al. 2003. CRHSP-24 phosphorylation is regulated by multiple signaling pathways in acinar cells. *Am. J. Physiol. Gastrointest. Liver Physiol.* 285: 726-734.
7. Sans, M.D., et al. 2004. Calcineurin is required for translational control of protein synthesis in rat pancreatic acini. *Am. J. Physiol., Cell Physiol.* 287: C310-C319.
8. Tashiro, M., et al. 2004. Calcineurin mediates pancreatic growth in protease inhibitor-treated mice. *Am. J. Physiol. Gastrointest. Liver Physiol.* 286: G784-G790.
9. Auld, G.C., et al. 2005. Identification of calcium-regulated heat-stable protein of 24 kDa (CRHSP24) as a physiological substrate for PKB and RSK using KESTREL. *Biochem. J.* 389: 775-783.

## 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: Carhsp1 (mouse) mapping to 16 A1.

## PRODUCT

CRHSP-24 (m): 293T Lysate represents a lysate of mouse CRHSP-24 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## APPLICATIONS

CRHSP-24 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive CRHSP-24 antibodies. Recommended use: 10-20 µl per lane.

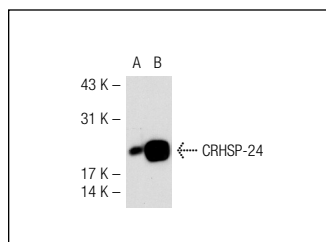
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

CRHSP-24 (A-1): sc-137072 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse CRHSP-24 expression in CRHSP-24 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-IgGκ BP-HRP: sc-516102 or m-IgGκ 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



CRHSP-24 (A-1): sc-137072. Western blot analysis of CRHSP-24 expression in non-transfected: sc-117752 (A) and mouse CRHSP-24 transfected: sc-119456 (B) 293T whole cell lysates.

## RESEARCH USE

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