CRHSP-24 (D-6): sc-393348



The Power to Question

BACKGROUND

CRHSP-24 (calcium-regulated heat-stable protein 24) is a serine phosphoprotein originally identified as a physiological substrate for the Ca²+-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 α) 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

- Burnham, D.B., et al. 1982. Effects of carbachol, cholecystokinin, and Insulin on protein phosphorylation in isolated pancreatic acini. J. Biol. Chem. 257: 10523-10528.
- Groblewski, 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.
- 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.
- Wishart, M.J. and Dixon, J.E. 2002. PTEN and myotubularin phosphatases: from 3-phosphoinositide dephosphorylation to disease. Trends Cell Biol. 12: 579-585.
- Schäfer, C., et al. 2003. CRHSP-24 phosphorylation is regulated by multiple signaling pathways in acinar cells. Am. J. Physiol. Gastrointest. Liver Physiol. 285: G726-G734.
- 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.
- 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.

CHROMOSOMAL LOCATION

Genetic locus: CARHSP1 (human) mapping to 16p13.2.

SOURCE

CRHSP-24 (D-6) is a mouse monoclonal antibody raised against amino acids 10-45 mapping near the N-terminus of CRHSP-24 of human origin.

PRODUCT

Each vial contains 200 $\mu g \ lgG_{2a}$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

CRHSP-24 (D-6) is recommended for detection of CRHSP-24 of human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CRHSP-24 siRNA (h): sc-60443, CRHSP-24 shRNA Plasmid (h): sc-60443-SH and CRHSP-24 shRNA (h) Lentiviral Particles: sc-60443-V.

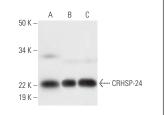
Molecular Weight of CRHSP-24: 24 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, HeLa whole cell lysate: sc-2200 or Jurkat whole cell lysate: sc-2204.

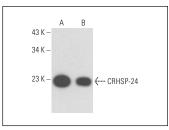
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-lgG κ BP-HRP: sc-516102 or m-lgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz MarkerTM Molecular Weight Standards: sc-2035, UltraCruz* Blocking Reagent: sc-516214 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 m-lgG κ BP-FITC: sc-516140 or m-lgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz* Mounting Medium: sc-24941 or UltraCruz* Hard-set Mounting Medium: sc-359850.

DATA







CRHSP-24 (D-6): sc-393348. Western blot analysis of CRHSP-24 expression in MOLT-4 (A) and SJRH30 (B) whole cell lysates.

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.