SANTA CRUZ BIOTECHNOLOGY, INC.

AKAP 149 (H-8): sc-390072

BACKGROUND

The type II cAMP-protein kinase (PKA) is a multifunctional kinase with a broad range of substrates. Specificity of PKA signaling is thought to be mediated by the compartmentalization of the kinase to specific sites within the cell. To maintain this specific localization, the R subunit (RII) of PKA interacts with specific RII-anchoring proteins. This family of proteins has been designated A-kinase anchoring proteins (AKAP). Members of this family, including MAP2 (microtubule-associated protein 2), neuronally expressed AKAP 79 and AKAP 150, and the DNA binding AKAP 95, display differential tissue specificity and localization. AKAP 149, the human homolog of mouse and rat AKAP 121, is a splice variant of S-AKAP 84 and may be involved in the phosphorylation-dependent regulation of RNA processing.

REFERENCES

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3. Coghlan, V.M., Bergeson, S.E., Langeberg, L., Nilaver, G. and Scott, J.D. 1993. A-kinase anchoring proteins: a key to selective activation of cAMP-responsive events? Mol. Cell. Biochem. 127: 309-319.
4. Coghlan, V.M., Langeberg, L.K., Fernandez, A., Lamb, N.J. and Scott, J.D. 1994. Cloning and characterization of AKAP 95, a nuclear protein that associates with the regulatory subunit of type II cAMP-dependent protein kinase. J. Biol. Chem. 269: 7658-7665.
5. Coghlan, V.M., Perrino, B.A., Howard, M., Langeberg, L.K., Hicks, J.B., Gallatin, W.M. and Scott, J.D. 1995. Association of protein kinase A and protein phosphatase 2B with a common anchoring protein. Science 267: 108-111.
6. Lester, L.B., Coghlan, V.M., Nauert, B. and Scott, J.D. 1996. Cloning and characterization of a novel A-kinase anchoring protein. AKAP 220, association with testicular peroxisomes. J. Biol. Chem. 271: 9460-9465.

CHROMOSOMAL LOCATION

Genetic locus: AKAP1 (human) mapping to 17q22; Akap1 (mouse) mapping to 11 C.

SOURCE

AKAP 149 (H-8) is a mouse monoclonal antibody raised against amino acids 604-903 mapping at the C-terminus of AKAP 149 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

AKAP 149 (H-8) is recommended for detection of AKAP 149 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for AKAP 149 siRNA (h): sc-40301, AKAP 149 siRNA (r): sc-270522, AKAP 149 shRNA Plasmid (h): sc-40301-SH, AKAP 149 shRNA Plasmid (r): sc-270522-SH, AKAP 149 shRNA (h) Lentiviral Particles: sc-40301-V and AKAP 149 shRNA (r) Lentiviral Particles: sc-270522-V.

Molecular Weight of human AKAP 149: 149 kDa.

Molecular Weight of mouse and rat AKAP 121: 121 kDa.

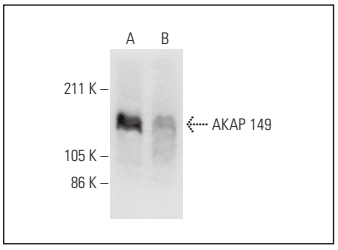
Molecular Weight of S-AKAP 84 isoform: 84 kDa.

Positive Controls: COLO 320DM cell lysate: sc-2226, HeLa whole cell lysate: sc-2200 or LNCaP cell lysate: sc-2231.

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ 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



AKAP 149 (H-8): sc-390072. Western blot analysis of AKAP 149 expression in HeLa (**A**) and COLO 320DM (**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.