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SANTA CRUZ BIOTECHNOLOGY, INC.

AP4A Hydrolase (h): 293T Lysate: sc-173374

BACKGROUND

Asymmetric diadenosine 5',5'''-P^1,P^4-tetraphosphate (AP4A) hydrolase is a Nudix enzyme that maintains homeostasis by using water to cleave the metabolite AP4A symmetrically back into its original ATP and AMP molecules. AP4A resides in pancreatic β cells where it targets ATP-sensitive K^+ channels and depolarizes the cell membrane causing the excretion of Insulin. AP4A may be involved in the development of diabetes mellitus by raising blood glucose and lowering plasma Insulin. AP4A Hydrolase is also active towards other adenosine and diadenosine polyphosphates with four or more phosphate groups, but not towards diadenosine triphosphate. AP4A Hydrolase is involved in heat shock and metabolic stress by regulating intracellular dinucleoside polyphosphate concentrations.

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CHROMOSOMAL LOCATION

Genetic locus: NUDT2 (human) mapping to 9p13.3.

PRODUCT

AP4A Hydrolase (h): 293T Lysate represents a lysate of human AP4A Hydrolase transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

AP4A Hydrolase (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive AP4A Hydrolase antibodies. Recommended use: 10-20 µl per lane.

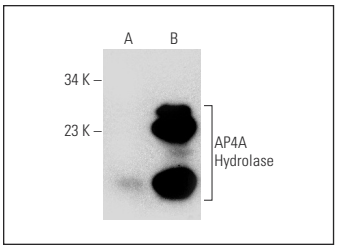
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

AP4A Hydrolase (F-5): sc-271410 is recommended as a positive control antibody for Western Blot analysis of enhanced human AP4A Hydrolase expression in AP4A Hydrolase 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



AP4A Hydrolase (F-5): sc-271410. Western blot analysis of AP4A Hydrolase expression in non-transfected: sc-117752 (**A**) and human AP4A Hydrolase transfected: sc-173374 (**B**) 293T whole cell lysates.

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.

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.