

AP4A Hydrolase (FL-147): sc-67181

BACKGROUND

Asymmetric diadenosine 5',5'''-P₁,P₄-tetrphosphate (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.

CHROMOSOMAL LOCATION

Genetic locus: NUDT2 (human) mapping to 9p13.3; Nudt2 (mouse) mapping to 4 A5.

SOURCE

AP4A Hydrolase (FL-147) is a rabbit polyclonal antibody raised against amino acids 1-147 representing full length AP4A Hydrolase of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

AP4A Hydrolase (FL-147) is recommended for detection of AP4A Hydrolase of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

AP4A Hydrolase (FL-147) is also recommended for detection of AP4A Hydrolase in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for AP4A Hydrolase siRNA (h): sc-60188, AP4A Hydrolase siRNA (m): sc-60189, AP4A Hydrolase shRNA Plasmid (h): sc-60188-SH, AP4A Hydrolase shRNA Plasmid (m): sc-60189-SH, AP4A Hydrolase shRNA (h) Lentiviral Particles: sc-60188-V and AP4A Hydrolase shRNA (m) Lentiviral Particles: sc-60189-V.

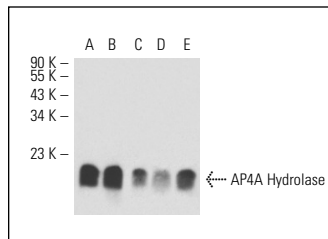
Molecular Weight of AP4A Hydrolase: 17 kDa.

Positive Controls: AP4A Hydrolase (h): 293T Lysate: sc-173374, JAR cell lysate: sc-2276 or Hep G2 cell lysate: sc-2227.

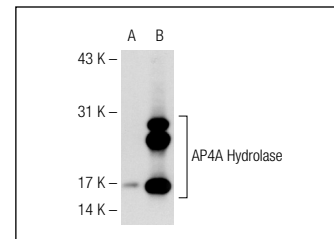
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



AP4A Hydrolase (FL-147): sc-67181. Western blot analysis of AP4A Hydrolase expression in JAR (A), JEG-3 (B) and Hep G2 (C) whole cell lysates and mouse placenta (D) and mouse spleen (E) tissue extracts.



AP4A Hydrolase (FL-147): sc-67181. 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.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **AP4A Hydrolase (F-5): sc-271410**, our highly recommended monoclonal alternative to AP4A Hydrolase (FL-147).