

pan ATP (H-39): sc-99109

BACKGROUND

The family of P-type adenosine triphosphates (ATPases), which are phosphorylated in their intermediate state, are involved in the active transport of charged substrates across biological membranes. Members of this family are ubiquitous integral membrane proteins and can be divided into five major groups consisting of several subfamilies each. The P-type ATPase Type IV family members are characterized as phospholipid pumps and are then divided into six classes determined by sequence similarity. One such family member is ATP8A1, which is expressed in a variety of adult tissues, including brain, heart and skeletal muscle, where it plays a role in the transport of aminophospholipids from the outer membrane to the inner vesicle compartment. Like ATP8A1, other members of the P-type ATPase Type IV family, including ATP8A2 and ATP8B2, are involved in aminophospholipid transport, as well as in the ATP-dependent maintenance of ion gradients within cell membranes.

REFERENCES

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SOURCE

pan ATP (H-39) is a rabbit polyclonal antibody raised against amino acids 795-833 mapping within an internal region of ATP8A1 of human origin.

RESEARCH USE

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

PRODUCT

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

APPLICATIONS

pan ATP (H-39) is recommended for detection of ATP8A1, ATP8A2, ATP8B2, ATP8B4 and, to a lesser extent, ATP8B1, ATP8B3, ATP10A, ATP10B, ATP10C, ATP11A, ATP11B and ATP11C of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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); may also cross-react with ATP9A and ATP9B.

pan ATP (H-39) is also recommended for detection of ATP8A1, ATP8A2, ATP8B2, ATP8B4 and, to a lesser extent, ATP8B1, ATP8B3, ATP10A, ATP10B, ATP10C, ATP11A, ATP11B and ATP11C in additional species, including equine, canine, bovine and avian.

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.

STORAGE

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

PROTOCOLS

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


 MONOS
Satisfaction
Guaranteed

Try **ATP10A (G-9): sc-514650**, our highly recommended monoclonal alternative to pan ATP (H-39).