

Na⁺/K⁺-ATPase α3 (H-65): sc-134969

BACKGROUND

The ubiquitously expressed sodium/potassium-ATPase (Na⁺/K⁺-ATPase) exists as a oligomeric plasma membrane complex that couples the hydrolysis of one molecule of ATP to the importation of three Na⁺ ions and two K⁺ ions against their respective electrochemical gradients. As a member of the P-type family of ion motives, Na⁺/K⁺-ATPase plays a critical role in maintaining cellular volume, resting membrane potential and Na⁺-coupled solute transport. Multiple isoforms of three subunits, α, β and γ, comprise the Na⁺/K⁺-ATPase oligomer. The α subunit contains the binding sites for ATP and the cations; the glycosylated β subunit ensures correct folding and membrane insertion of the α subunits. The small γ subunit co-localizes with the α subunit in nephron segments, where it increases the affinity of Na⁺/K⁺-ATPase for ATP. The β subunit, but not the γ subunit, is essential for normal activity of Na⁺/K⁺-ATPase.

CHROMOSOMAL LOCATION

Genetic locus: ATP1A3 (human) mapping to 19q13.2; Atp1a3 (mouse) mapping to 7 A3.

SOURCE

Na⁺/K⁺-ATPase α3 (H-65) is a rabbit polyclonal antibody raised against amino acids 1-65 mapping at the N-terminus of Na⁺/K⁺-ATPase α3 of human origin.

PRODUCT

Each vial contains 200 μg 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

Na⁺/K⁺-ATPase α3 (H-65) is recommended for detection of Na⁺/K⁺-ATPase α3 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); non cross-reactive with other Na⁺/K⁺-ATPase family members.

Na⁺/K⁺-ATPase α3 (H-65) is also recommended for detection of Na⁺/K⁺-ATPase α3 in additional species, including bovine, porcine and avian.

Suitable for use as control antibody for Na⁺/K⁺-ATPase α3 siRNA (h): sc-36012, Na⁺/K⁺-ATPase α3 siRNA (m): sc-36013, Na⁺/K⁺-ATPase α3 shRNA Plasmid (h): sc-36012-SH, Na⁺/K⁺-ATPase α3 shRNA Plasmid (m): sc-36013-SH, Na⁺/K⁺-ATPase α3 shRNA (h) Lentiviral Particles: sc-36012-V and Na⁺/K⁺-ATPase α3 shRNA (m) Lentiviral Particles: sc-36013-V.

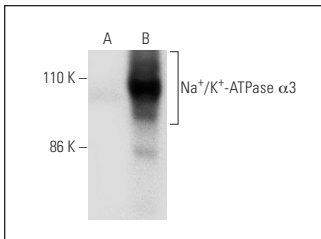
Molecular Weight of Na⁺/K⁺-ATPase α3: 113 kDa.

Positive Controls: Na⁺/K⁺-ATPase α3 (h): 293T Lysate: sc-158752, Hep G2 cell lysate: sc-2227 or rat brain extract: sc-2392.

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



Na⁺/K⁺-ATPase α3 (H-65): sc-134969. Western blot analysis of Na⁺/K⁺-ATPase α3 expression in non-transfected: sc-110760 (A) and human Na⁺/K⁺-ATPase α3 transfected: sc-158752 (B) 293 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 **Na⁺/K⁺-ATPase α3 (H-4): sc-365744** or **Na⁺/K⁺-ATPase α3 (G-6): sc-376967**, our highly recommended monoclonal alternatives to Na⁺/K⁺-ATPase α3 (H-65).