

NKAIN4 (C-14): sc-86183

BACKGROUND

The ubiquitously expressed sodium/potassium-ATPase (Na⁺/K⁺-ATPase) is an oligomeric plasma membrane complex that couples the hydrolysis of one molecule of ATP to the import 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. NKAIN4 (sodium/potassium-transporting ATPase subunit β-1-interacting protein 4), also known as FAM77A, is a 208 amino acid multi-pass membrane protein that exists as multiple alternatively spliced isoforms and interacts with Na⁺/K⁺-ATPase β1, a subunit of the Na⁺/K⁺-ATPase complex. Since it is expressed in the central nervous system and is involved with an essential long-term regulator of membrane potential, it is likely that NKAIN4 is critical for neuronal function.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: NKAIN4 (human) mapping to 20q13.33; Nkain4 (mouse) mapping to 2 H4.

SOURCE

NKAIN4 (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of NKAIN4 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.

Blocking peptide available for competition studies, sc-86183 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

NKAIN4 (C-14) is recommended for detection of NKAIN4 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 NKAIN3.

NKAIN4 (C-14) is also recommended for detection of NKAIN4 in additional species, including avian.

Suitable for use as control antibody for NKAIN4 siRNA (h): sc-75928, NKAIN4 siRNA (m): sc-149987, NKAIN4 shRNA Plasmid (h): sc-75928-SH, NKAIN4 shRNA Plasmid (m): sc-149987-SH, NKAIN4 shRNA (h) Lentiviral Particles: sc-75928-V and NKAIN4 shRNA (m) Lentiviral Particles: sc-149987-V.

Molecular Weight of NKAIN4: 23 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (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.

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.