

NKAIN4 (E-13): sc-86185



The Power to Question

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 β 1, 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.

SOURCE

NKAIN4 (E-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of NKAIN4 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.

Blocking peptide available for competition studies, sc-86185 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

NKAIN4 (E-13) is recommended for detection of NKAIN4 of 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); non cross-reactive with NKAIN3.

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

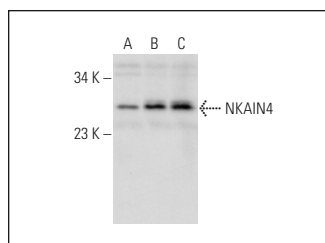
Molecular Weight of NKAIN4: 23 kDa.

Positive Controls: MDA-MB-231 cell lysate: sc-2232, IMR-32 cell lysate: sc-2409 or T-47D cell lysate: sc-2293.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



NKAIN4 (E-13): sc-86185. Western blot analysis of NKAIN4 expression in T-47D (A), IMR-32 (B) and MDA-MB-231 (C) 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.