



FXYP4 (M-16): sc-26102

BACKGROUND

The human FXYP2 (pronounced fix-id) gene maps to chromosome 11q23 and encodes the gamma subunit of Na,K-ATPase (NKA). FXYP2 γ subunit modulates NKA activity by inducing ion channel activity. The mammalian FXYP family maintains Na⁺ and K⁺ gradients between the intracellular and extracellular milieu of cells in processes such as renal Na⁺-reabsorption, muscle contraction, and neuronal excitability. FXYPs are single-span membrane proteins that share a 35-amino acid signature domain, beginning with the sequence PFXYP and containing 7 invariant and 6 conserved amino acids. Other members of the FXYP family include FXYP1 (PLM, phospholemman), FXYP3 (Mat8, mammary tumor protein 8 kDa), FXYP4 (CHIF), and FXYP5 (RIC).

REFERENCES

1. Sweadner, K.J., et al. 2000. The FXYP gene family of small ion transport regulators or channels: cDNA sequence, protein signature sequence, and expression. *Genomics* 68: 41-56.
2. Beguin, P., et al. 2001. CHIF, a member of the FXYP protein family, is a regulator of Na,K-ATPase distinct from the gamma-subunit. *EMBO J.* 20: 3993-4002.
3. Crambert, G., et al. 2002. Phospholemman (FXYP1) associates with Na,K-ATPase and regulates its transport properties. *Proc. Natl. Acad. Sci. U.S.A.* 99: 11476-11481.
4. Crambert, G., et al. 2003. FXYP proteins: new tissue-specific regulators of the ubiquitous Na,K-ATPase. *Sci STKE* 2003: RE1.
5. Crowell, K.J., et al. 2003. Expression and characterization of the FXYP ion transport regulators for NMR structural studies in lipid micelles and lipid bilayers. *Biochim. Biophys. Acta* 1645: 15-21.

CHROMOSOMAL LOCATION

Genetic locus: Fxyp4 (mouse) mapping to 6 F1.

SOURCE

FXYP4 (M-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of FXYP4 of mouse 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-26102 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.

RESEARCH USE

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

APPLICATIONS

FXYP4 (M-16) is recommended for detection of FXYP4 of mouse and rat 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).

Suitable for use as control antibody for FXYP4 siRNA (m): sc-42424, FXYP4 shRNA Plasmid (m): sc-42424-SH and FXYP4 shRNA (m) Lentiviral Particles: sc-42424-V.

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.

PROTOCOLS

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