

FXYP6 (E-11): sc-398465

BACKGROUND

The mammalian FXYP family maintains Na⁺ and K⁺ gradients between the intracellular and extracellular milieus 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 seven invariant and six conserved amino acids. Members of the FXYP family include FXYP1 (PLM, phospholemman), FXYP2 (the γ subunit of the Na⁺/K⁺-ATPase), FXYP3 (Mat8, mammary tumor protein), FXYP4 (CHIF) and FXYP5 (RIC). FXYP6 is expressed in various epithelial cells bordering the endolymph space and in the auditory neurons. FXYP6 co-localizes with Na⁺/K⁺-ATPase in the stria vascularis and can be co-immunoprecipitated with Na⁺/K⁺-ATPase. After expression, FXYP6 associates with Na⁺/K⁺-ATPase α 1- β 1 and α 1- β 2 isozymes, which are preferentially expressed in different regions of the inner ear and also with gastric and non-gastric H⁺/K⁺-ATPase.

REFERENCES

1. Mahmood, Y.A., et al. 2000. Identification of a phospholemman-like protein from shark rectal glands. Evidence for indirect regulation of Na, K-ATPase by protein kinase c via a novel member of the FXYP family. *J. Biol. Chem.* 275: 35969-35977.
2. Olstad, O.K., et al. 2003. Molecular heterogeneity in human osteosarcoma demonstrated by enriched mRNAs isolated by directional tag PCR subtraction cloning. *Anticancer Res.* 23: 2201-2216.
3. Kadowaki, K., et al. 2004. Phosphohippolin expression in the rat central nervous system. *Brain Res. Mol. Brain Res.* 125: 105-112.
4. Mulligan, M.K., et al. 2006. Toward understanding the genetics of alcohol drinking through transcriptome meta-analysis. *Proc. Natl. Acad. Sci. USA* 103: 6368-6373.

CHROMOSOMAL LOCATION

Genetic locus: FXYP6 (human) mapping to 11q23.3; Fxyd6 (mouse) mapping to 9 A5.2.

SOURCE

FXYP6 (E-11) is a mouse monoclonal antibody raised against amino acids 1-40 mapping at the N-terminus of FXYP6 of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

FXYP6 (E-11) is available conjugated to agarose (sc-398465 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398465 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398465 PE), fluorescein (sc-398465 FITC), Alexa Fluor® 488 (sc-398465 AF488), Alexa Fluor® 546 (sc-398465 AF546), Alexa Fluor® 594 (sc-398465 AF594) or Alexa Fluor® 647 (sc-398465 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398465 AF680) or Alexa Fluor® 790 (sc-398465 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

FXYP6 (E-11) is recommended for detection of FXYP6 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for FXYP6 siRNA (h): sc-62360, FXYP6 siRNA (m): sc-62361, FXYP6 shRNA Plasmid (h): sc-62360-SH, FXYP6 shRNA Plasmid (m): sc-62361-SH, FXYP6 shRNA (h) Lentiviral Particles: sc-62360-V and FXYP6 shRNA (m) Lentiviral Particles: sc-62361-V.

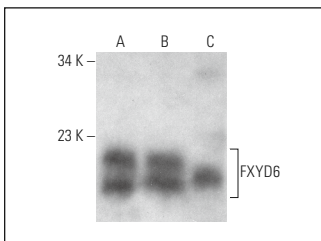
Molecular Weight of FXYP6: 11 kDa.

Positive Controls: mouse inner ear extract: sc-395050, human brain extract: sc-364375 or human cerebral cortex extract: sc-516707.

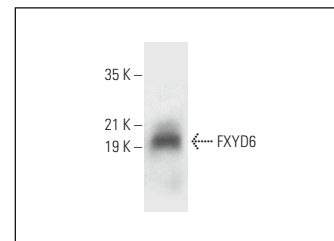
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG_κ BP-HRP: sc-516102 or m-IgG_κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgG_κ BP-FITC: sc-516140 or m-IgG_κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



FXYP6 (E-11): sc-398465. Western blot analysis of FXYP6 expression in human cerebral cortex (A), human hippocampus (B) and mouse inner ear (C) tissue extracts.



FXYP6 (E-11): sc-398465. Western blot analysis of FXYP6 expression in human brain tissue extract.

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 for detailed protocols and support products.