

# FXYD3 (FL-87): sc-67245

## BACKGROUND

The mammalian FXYD family maintains Na<sup>+</sup> and K<sup>+</sup> gradients between the intracellular and extracellular milieu of cells in processes such as renal Na<sup>+</sup>-reabsorption, muscle contraction and neuronal excitability. FXYDs are single-span membrane proteins that share a 35 amino acid signature domain, beginning with the sequence PFXYD and containing seven invariant and six conserved amino acids. Members of the FXYD family include FXYD1 (PLM, phospholemman), FXYD2 (the  $\gamma$  subunit of the Na/K-ATPase), FXYD3 (Mat8, mammary tumor protein), FXYD4 (CHIF) and FXYD5 (RIC). FXYD3, a 67 amino acid protein, may act as a chloride channel or as a chloride channel regulator. It is expressed in a subset of human breast tumors and shows partial homology to FXYD1. FXYD3 has a putative 20 amino acid leader sequence and a putative transmembrane domain (with two cysteine residues). It contains no consensus phosphorylation sites in the cytoplasmic domain.

## REFERENCES

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- Sweadner, K.J. and Rael, E. 2000. The FXYD gene family of small ion transport regulators or channels: cDNA sequence, protein signature sequence and expression. *Genomics* 68: 41-56.
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- Crambert, G., Li, C., Claeys, D. and Geering, K. 2005. FXYD3 (Mat-8), a new regulator of Na/K-ATPase. *Mol. Biol. Cell* 16: 2363-2371.
- Arimochi, J., Kobayashi, A. and Maeda, M. 2005. Stable expression and visualization of Mat-8 (FXYD-3) tagged with a fluorescent protein in Chinese hamster ovary (CHO)-K1 cells. *Biotechnol. Lett.* 27: 1017-1024.

## CHROMOSOMAL LOCATION

Genetic locus: FXYD3 (human) mapping to 19q13.12, FXYD4 (human) mapping to 10q11.21; Fxyd3 (mouse) mapping to 7 B1, Fxyd4 (mouse) mapping to 6 F1.

## SOURCE

FXYD3 (FL-87) is a rabbit polyclonal antibody raised against amino acids 1-87 representing full length FXYD3 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## RESEARCH USE

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

## APPLICATIONS

FXYD3 (FL-87) is recommended for detection of FXYD3 and, to a lesser extent, FXYD4 of human and, to a lesser extent, mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

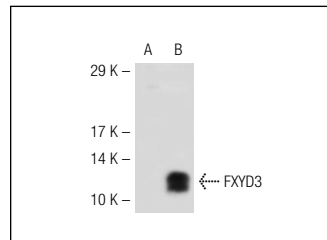
Molecular Weight of FXYD3: 8 kDa.

Positive Controls: human pancreas extract: sc-363770.

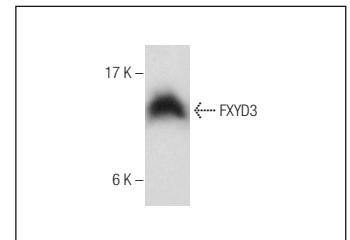
## RECOMMENDED SECONDARY REAGENTS

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



FXYD3 (FL-87): sc-67245. Western blot analysis of FXYD3 expression in non-transfected: sc-117752 (A) and mouse FXYD3 transfected: sc-126876 (B) 293T whole cell lysates.



FXYD3 (FL-87): sc-67245. Western blot analysis of FXYD3 expression in human pancreas tissue extract.

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.


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Try **FXYD3 (B-3): sc-393639** or **FXYD3 (A-8): sc-271808**, our highly recommended monoclonal alternatives to FXYD3 (FL-87).