SANTA CRUZ BIOTECHNOLOGY, INC.

STOML3 (K-13): sc-84622

BACKGROUND

STOML3 [Stomatin (EPB72)-like 3], whose alternative names include Stomatin-like protein 3, Stomatin-related olfactory protein, SRO, SLP3, Epb7.2l, erythrocyte band 7 integral membrane protein or protein 7.2B, is a 291 amino acid single-pass type III membrane protein belonging to the band 7/mec-2 family. STOML3 is expressed in olfactory sensory neurons, with high expression in apical dendrites. STOML3 is also known to associate with A cyclase III and caveolin-1 in olfactory cilia. STOML3 is essential for regulating odorant signals in olfactory cilia lipid rafts and plays a role in mammalian mechanotransduction. Studies indicate that many ion channels of sensory neurons which depend on mechanical stimuli cannot function in the absence of STOML3. STOML3 contains two N-terminal hydrophobic domains and forms regions rich in β sheets and α helices, which are common to members of the Stomatin family. The gene encoding STOML3 maps to human chromosome 13q13.3.

REFERENCES

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2. Mannsfeldt, A.G., Carroll, P., Stucky, C.L. and Lewin, G.R. 1999. Stomatin, a MEC-2 like protein, is expressed by mammalian sensory neurons. Mol. Cell. Neurosci. 13: 391-404.
3. Kobayakawa, K., Hayashi, R., Morita, K., Miyamichi, K., Oka, Y., Tsuboi, A. and Sakano, H. 2002. Stomatin-related olfactory protein, SRO, specifically expressed in the murine olfactory sensory neurons. J. Neurosci. 22: 5931-5937.
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CHROMOSOMAL LOCATION

Genetic locus: STOML3 (human) mapping to 13q13.3; Stoml3 (mouse) mapping to 3 C.

SOURCE

STOML3 (K-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of STOML3 of human origin.

RESEARCH USE

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

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-84622 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

STOML3 (K-13) is recommended for detection of STOML3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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 STOML2.

STOML3 (K-13) is also recommended for detection of STOML3 in additional species, including equine, canine and porcine.

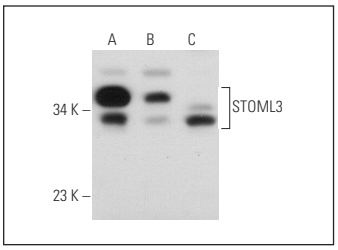
Suitable for use as control antibody for STOML3 siRNA (h): sc-76595, STOML3 siRNA (m): sc-153903, STOML3 shRNA Plasmid (h): sc-76595-SH, STOML3 shRNA Plasmid (m): sc-153903-SH, STOML3 shRNA (h) Lentiviral Particles: sc-76595-V and STOML3 shRNA (m) Lentiviral Particles: sc-153903-V.

Molecular Weight (predicted) of STOML3: 32 kDa.

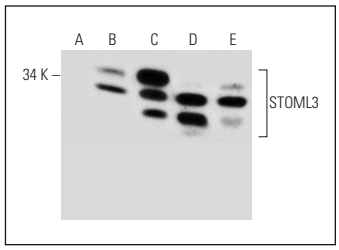
Molecular Weight (observed) of STOML3: 29-35 kDa.

Positive Controls: STOML3 (h): 293T Lysate: sc-114056, HeLa whole cell lysate: sc-2200 or ES-2 cell lysate: sc-24674.

DATA



STOML3 (K-13): sc-84622. Western blot analysis of STOML3 expression in WI 38 (**A**), ES-2 (**B**) and HeLa (**C**) whole cell lysates.



STOML3 (K-13): sc-84622. Western blot analysis of STOML3 expression in non-transfected 293T: sc-117752 (**A**), human STOML3 transfected 293T: sc-114056 (**B**), ES-2 (**C**), HeLa (**D**) and Jurkat (**E**) whole cell lysates.

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 or our catalog for detailed protocols and support products.