

Bestrophin-3 (T-16): sc-70147

BACKGROUND

Bestrophin-3, also known as BEST3 or VMD2L3 (vitelliform macular dystrophy 20-like protein 3), is a 668 amino acid member of the Bestrophin family of proteins. Members of the Bestrophin family are transmembrane proteins that contain a high percentage of aromatic residues, a conserved RFP (Arg-Phe-Pro) motif and they function as anion channels. Expressed predominantly in skeletal muscle but also found in spinal cord, brain, testis, thymus, retina and bone marrow, Bestrophin-3 forms calcium-sensitive chloride channels. In addition, Bestrophin-3 contains an AI (auto-inhibitory) domain that is capable of regulating the anion channel activity. Due to alternative splicing events, three isoforms exist for Bestrophin-3.

REFERENCES

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2. Stöhr, H., Marquardt, A., Nanda, I., Schmid, M. and Weber, B.H. 2002. Three novel human VMD2-like genes are members of the evolutionary highly conserved RFP-TM family. *Eur. J. Hum. Genet.* 10: 281-284.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607337. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Tsunenari, T., Sun, H., Williams, J., Cahill, H., Smallwood, P., Yau, K.W. and Nathans, J. 2003. Structure-function analysis of the Bestrophin family of anion channels. *J. Biol. Chem.* 278: 41114-41125.
5. Duta, V., Szkotak, A.J., Nahirney, D. and Duszyk, M. 2004. The role of Bestrophin in airway epithelial ion transport. *FEBS Lett.* 577: 551-554.
6. Chien, L.T., Zhang, Z.R. and Hartzell, H.C. 2006. Single Cl⁻ channels activated by Ca²⁺ in *Drosophila* S2 cells are mediated by Bestrophins. *J. Gen. Physiol.* 128: 247-259.

CHROMOSOMAL LOCATION

Genetic locus: BEST3 (human) mapping to 12q15; Best3 (mouse) mapping to 10 D2.

SOURCE

Bestrophin-3 (T-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of Bestrophin-3 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

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

APPLICATIONS

Bestrophin-3 (T-16) is recommended for detection of Bestrophin-3 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).

Bestrophin-3 (T-16) is also recommended for detection of Bestrophin-3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Bestrophin-3 siRNA (h): sc-72641, Bestrophin-3 siRNA (m): sc-72642, Bestrophin-3 shRNA Plasmid (h): sc-72641-SH, Bestrophin-3 shRNA Plasmid (m): sc-72642-SH, Bestrophin-3 shRNA (h) Lentiviral Particles: sc-72641-V and Bestrophin-3 shRNA (m) Lentiviral Particles: sc-72642-V.

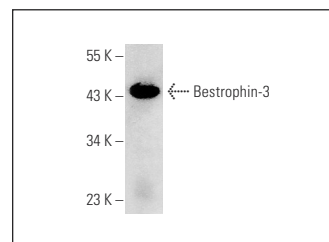
Molecular Weight of Bestrophin-3: 47 kDa.

Positive Controls: mouse heart extract: sc-2254 or mouse eye extract: sc-364241.

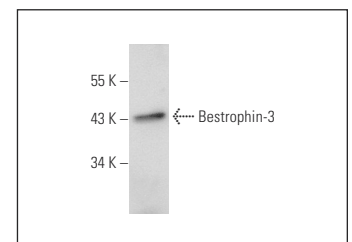
RECOMMENDED SECONDARY REAGENTS

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



Bestrophin-3 (T-16): sc-70147. Western blot analysis of Bestrophin-3 expression in mouse heart tissue extract.



Bestrophin-3 (T-16): sc-70147. Western blot analysis of Bestrophin-3 expression in mouse eye 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.