

## Product datasheet for **TA328717**

### Best2 Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3000
Reactivity:	Human, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide (C)DPAQGYKDHTLD, corresponding to amino acid residues 259-270 of mouse Bestrophin-2. 3rd extracellular loop.
Formulation:	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: Phosphate buffered saline (PBS), pH 7.4, 1% BSA, 0.025% NaN <sub>3</sub> .
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized antigen.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	bestrophin 2
Database Link:	<a href="#">NP_001123666</a> <a href="#">Entrez Gene 54831 Human</a> <a href="#">Entrez Gene 364973 Rat</a> <a href="#">Q8BGM5</a>



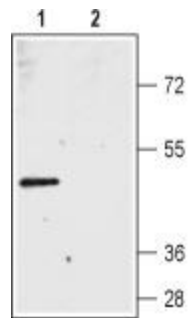
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**Background:**

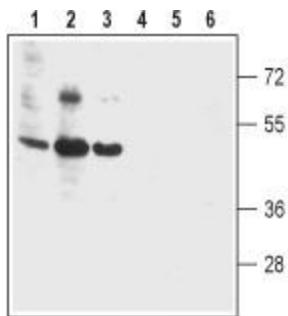
Mammalian Cl channels can be broadly classified into four different families: voltage-dependent Cl channels (CLCs), the cystic fibrosis transmembrane conductance regulator (CFTR), ligand-gated Cl channels ( $\gamma$ -aminobutyric acid (GABA) and glycine channels) and Ca<sup>2+</sup>-activated Cl channels (Bestrophin and Anoctamin channels). Bestrophins were first found by genetic linkage of human-Bestrophin-1 (hBest1) to a juvenile form of macular degeneration called Best vitelliform macular dystrophy. To date Bestrophin 1-4 have been identified, although Bestrophin-3 and Bestrophin-4 have been observed only at the RNA level. In addition, splice variants of some of these Ca<sup>2+</sup>-activated Cl channels (CaCCs) have also been detected. CaCCs are known to be involved in the regulation of olfaction, taste, phototransduction, and excitability in the nervous system. However, the molecular identity and functional role of CaCC in the brain have not been well established. Bestrophin-2 is prominently expressed in colon and testes. Recently, Bestrophin-2 has also been found to be expressed in olfactory sensory neurons (OSNs). Two different topologies for Bestrophin-1 have been proposed. The first structure proposes that six hydrophobic domains span the membrane, while the second suggests that there are only four membrane-spanning domains. The same structural controversy applies to Bestrophin-2. Bestrophin-1 and Bestrophin-2 (as well as Bestrophin-4 by heterologous expression) are activated by intracellular Ca<sup>2+</sup>. Ca<sup>2+</sup>-dependent activation of Bestrophin-2 was also demonstrated in *Xenopus*.

**Synonyms:**

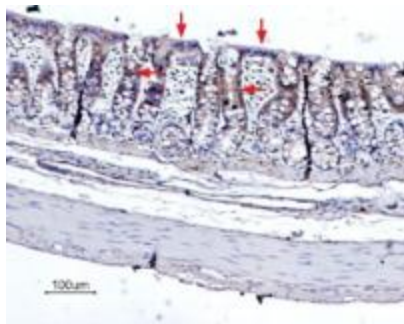
FLJ20132; VMD2L1

**Product images:**


Western blot analysis of rat colon membranes: 1. Anti-Bestrophin-2 (extracellular) antibody, (1:200). 2. Anti-Bestrophin-2 (extracellular) antibody, preincubated with the control peptide antigen.



Western blot analysis of human colon cancer cell lines Colo-205 (lanes 1 and 4), T-84 (lanes 2 and 5) and HT-29 (lanes 3 and 6): 1-3. Anti-Bestrophin-2 (extracellular) antibody, (1:200). 4-6. Anti-Bestrophin-2 (extracellular) antibody, preincubated with the control peptide antigen.



Expression of Bestrophin-2 in rat colon. Immunohistochemical staining of rat colon paraffin embedded sections using Anti-Bestrophin-2 (extracellular) antibody, (1:100), (brown). Bestrophin-2 is expressed in the columnar absorptive cells of the colonic epithelium (arrows). Hematoxylin is used as the counterstain.