

TTYH2 Antibody

Catalog # ASC11493

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q9BSA4
Other Accession	NP_116035 , 53988385
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	58772
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	TTYH2 antibody can be used for detection of TTYH2 by Western blot at 1 μ g/mL. Antibody can also be used for immunohistochemistry starting at 2.5 μ g/mL. For immunofluorescence start at 2.5 μ g/mL.

Additional Information

Gene ID	94015
Other Names	Protein tweety homolog 2, hTTY2, TTYH2, C17orf29
Target/Specificity	TTYH2; At least four isoforms of TTYH2 are known to exist; this antibody will only detect the two longest isoforms. This antibody is predicted to not cross-react with other TTYH family members.
Reconstitution & Storage	TTYH2 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	TTYH2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TTYH2
Synonyms	C17orf29
Function	Calcium-independent, swelling-dependent volume-regulated anion channel (VRAC-swell) which plays a pivotal role in the process of regulatory volume decrease (RVD) in the brain through the efflux of anions like chloride and organic osmolytes like glutamate (By similarity). Probable large-conductance Ca(2+)-activated chloride channel (PubMed: 15010458).

Cellular Location	Cell membrane; Multi-pass membrane protein
Tissue Location	Expressed at higher level in brain and testis and at lower levels in heart, ovary, spleen and peripheral blood leukocytes. Up-regulated in 13 of 16 renal cell carcinoma samples examined. Up-regulated in colon carcinoma

Background

TTYH2 Antibody: TTYH2 is a member of the tweety family of proteins, a family of chloride anion channels containing five transmembrane regions. TTYH2 is a Ca²⁺-activated large conductance chloride (Cl⁻) channel and may play a role in kidney tumorigenesis. It is also upregulated in colon carcinoma and is thought to play a role in cell proliferation and cell aggregation, suggesting that TTYH2 may play a role in regulating both proliferation and metastatic potentials of colorectal cancer. The ubiquitin-protein ligase Nedd4-2 binds to and ubiquitinates TTYH2, thereby regulating its cell surface expression and total cellular levels.

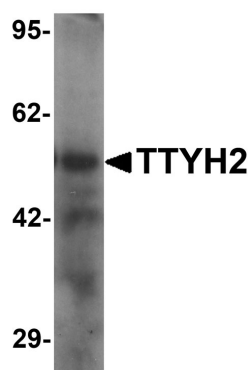
References

Rae FK, Hooper JD, Eyre HJ, et al. TTYH2, a human homologue of the *Drosophila melanogaster* gene tweety, is located on 17q24 and upregulated in renal cell carcinoma. *Genomics* 2001; 77:200-7.

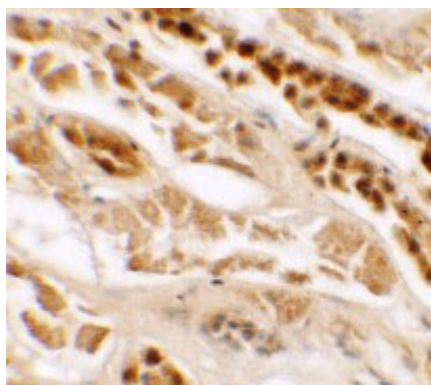
Toiyama Y, Mizoguchi A, Kimura K, et al. TTYH2, a human homologue of the *Drosophila melanogaster* gene tweety, is up-regulated in colon carcinoma and involved in cell proliferation and cell aggregation. *World J. Gastroenterol.* 2007; 13:2717-21

He Y, Hryciw DH, Carroll ML, et al. The ubiquitin-protein ligase Nedd4-2 differentially interacts with and regulates members of the Tweety family of chloride ion channels. *J. Biol. Chem.* 2008; 283:24000-10.

Images

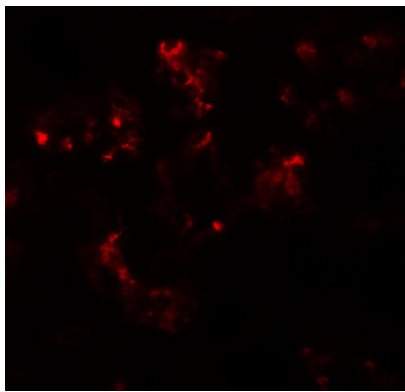


Western blot analysis of TTYH2 in human kidney tissue lysate with TTYH2 antibody at 1 µg/ml



Immunohistochemistry of TTYH2 in human kidney tissue with TTYH2 antibody at 2.5 µg/mL.

Immunofluorescence of TTYH2 in human kidney tissue with TTYH2 antibody at 20 µg/mL.



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