

TWIK-2 (P-19): sc-11486

BACKGROUND

K⁺ channels are divided into three subclasses, reflecting the number of transmembrane segments (TMS), which are designated 6TMS, 4TMS, and 2TMS. Members of the 4TMS class contain two distinct pore regions, and include TASK, TREK, TRAAK, and TWIK. TWIK-1 mRNA is expressed abundantly in brain and at lower levels in lung, kidney, and skeletal muscle. TWIK-2 shares low sequence homology with other mammalian family group members, and only 34% homology with TWIK-1. Human TWIK-2 is expressed in pancreas, placenta and heart, while mouse TWIK-2 is expressed in liver. TWIK-2 is inhibited by intracellular, but not extracellular, acidification.

REFERENCES

1. Lesage, F., Guillemare, E., Fink, M., Duprat, F., Lazdunski, M., Romey, G. and Barhanin, J. 1996. TWIK-1, a ubiquitous human weakly inward rectifying K⁺ channel with a novel structure. *EMBO J.* 15: 1004-1011.
2. Fink, M., Duprat, F., Lesage, F., Reyes, R., Romey, G., Heurteaux, C. and Lazdunski, M. 1996. Cloning, functional expression and brain localization of a novel unconventional outward rectifier K⁺ channel. *EMBO J.* 15: 6854-6862.

CHROMOSOMAL LOCATION

Genetic locus: KCNK6 (human) mapping to 19q13.2; Kcnk6 (mouse) mapping to 7 B1.

SOURCE

TWIK-2 (P-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TWIK-2 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, sc-11486 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TWIK-2 (P-19) is recommended for detection of TWIK-2 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).

Suitable for use as control antibody for TWIK-2 siRNA (h): sc-42351, TWIK-2 siRNA (m): sc-42352, TWIK-2 shRNA Plasmid (h): sc-42351-SH, TWIK-2 shRNA Plasmid (m): sc-42352-SH, TWIK-2 shRNA (h) Lentiviral Particles: sc-42351-V and TWIK-2 shRNA (m) Lentiviral Particles: sc-42352-V.

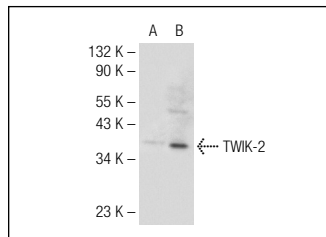
Molecular Weight of TWIK-2: 37 kDa.

Positive Controls: JEG-3 whole cell lysate: sc-364255, TWIK-2 (h): 293T Lysate: sc-176433 or COLO 320DM cell lysate: sc-2226.

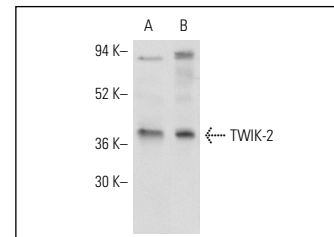
RECOMMENDED SECONDARY REAGENTS

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



TWIK-2 (P-19): sc-11486. Western blot analysis of TWIK-2 expression in non-transfected: sc-117752 (A) and human TWIK-2 transfected: sc-176433 (B) 293T whole cell lysates.



TWIK-2 (P-19): sc-11486. Western blot analysis of TWIK-2 expression in JEG-3 (A) and COLO 320DM (B) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Liang, X.J., Taylor, B., Cardarelli, C., Yin, J.J., Annereau, J.P., Garfield, S., Wincovitch, S., Szakács, G., Gottesman, M.M. and Aszalos, A. 2005. Different roles for K⁺ channels in cisplatin-resistant cell lines argue against a critical role for these channels in cisplatin resistance. *Anticancer Res.* 25: 4113-4122.

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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **TWIK-2 (H-6): sc-376515**, our highly recommended monoclonal alternative to TWIK-2 (P-19).