SANTA CRUZ BIOTECHNOLOGY, INC.

TALK-2 (G-18): sc-51224

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Potassium channels play an important role in cell excitability and plasticity. The pore loop domain, a highly conserved region common to all potassium channels, is involved in determining potassium ion selectivity. The family of potassium channels possessing two-pore loop domains consists of both inward and outwardly rectifying channels and includes THIK-1, THIK-2, TRESK, TALK-1 and TALK-2. Members of this family are all characterized by four transmembrane domains and may function to help influence the resting membrane potential of cells. TALK-2 is expressed in the exocrine pancreas and the Langherans islets and at lower levels in liver, placenta, heart and lung. TALK-2 is strongly and specifically activated by nitric oxide and dithiothreitol.

REFERENCES

1. Girard, C., et al. 2001. Genomic and functional characteristics of novel human pancreatic 2P domain K^+ channels. Biochem. Biophys. Res. Commun. 282: 249-256.
2. Han, J., et al. 2003. Functional properties of four splice variants of a human pancreatic tandem-pore K^+ channel, TALK-1. Am. J. Physiol., Cell Physiol. 285: C529-C538.

CHROMOSOMAL LOCATION

Genetic locus: KCNK17 (human) mapping to 6p21.2.

SOURCE

TALK-2 (G-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TALK-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-51224 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TALK-2 (G-18) is recommended for detection of TALK-2 of 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).

TALK-2 (G-18) is also recommended for detection of TALK-2 in additional species, including equine.

Suitable for use as control antibody for TALK-2 siRNA (h): sc-61641, TALK-2 shRNA Plasmid (h): sc-61641-SH and TALK-2 shRNA (h) Lentiviral Particles: sc-61641-V.

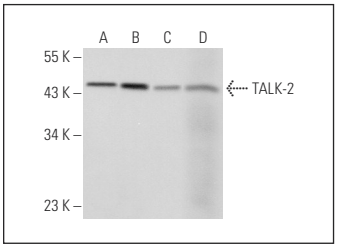
Molecular Weight of TALK-2: 36.9 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, Hep G2 cell lysate: sc-2227 or K-562 whole cell lysate: sc-2203.

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



TALK-2 (G-18): sc-51224. Western blot analysis of TALK-2 expression in Jurkat (**A**), K-562 (**B**) and Hep G2 (**C**) whole cell lysates and human liver tissue extract (**D**).

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.