

# TALK-1 (A-20): sc-50994

## 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-1 is exclusively expressed in the pancreas and its channels are strongly activated by nitric oxide, superoxide anion and singlet oxygen, as well as alkaline conditions. The cDNAs of three splice variants, TALK-1b, TALK-1c and TALK-1d, encode putative proteins of 294,322 and 262 amino acids, respectively.

## REFERENCES

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- Duprat, F., Girard, C., Jarretou, G. and Lazdunski, M. 2005. Pancreatic two P domain K<sup>+</sup> channels TALK-1 and TALK-2 are activated by nitric oxide and reactive oxygen species. *J. Physiol.* 562: 235-244.

## CHROMOSOMAL LOCATION

Genetic locus: KCNK16 (human) mapping to 6p21.2; Kcnk16 (mouse) mapping to 14 A3.

## SOURCE

TALK-1 (A-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of TALK-1 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-50994 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

TALK-1 (A-20) is recommended for detection of TALK-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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-1 (A-20) is also recommended for detection of TALK-1 in additional species, including equine, canine, porcine and avian.

Suitable for use as control antibody for TALK-1 siRNA (h): sc-61639, TALK-1 siRNA (m): sc-61640, TALK-1 shRNA Plasmid (h): sc-61639-SH, TALK-1 shRNA Plasmid (m): sc-61640-SH, TALK-1 shRNA (h) Lentiviral Particles: sc-61639-V and TALK-1 shRNA (m) Lentiviral Particles: sc-61640-V.

Molecular Weight of TALK-1: 34.2 kDa.

## 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) 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.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.