SANTA CRUZ BIOTECHNOLOGY, INC.

TALK-2 (E-18): sc-51223



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

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- Han, J., Kang, D. and Kim, D. 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.
- Sáez-Hernández, L., Peral, B., Sanz, R., Gómez-Garre, P., Ramos, C., Ayuso, C. and Serratosa, J.M. 2003. Characterization of a 6p21 translocation breakpoint in a generalized epilepsy. Epilepsy Res. 56: 155-163.
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- Duprat, F., Girard, C., Jarretou, G. and Lazdunski, M. 2005. Pancreatic 2P domain K⁺ channels TALK-1 and TALK-2 are activated by nitric oxide and reactive oxygen species. J. Physiol. 562: 235-244.

CHROMOSOMAL LOCATION

Genetic locus: KCNK17 (human) mapping to 6p21.1.

SOURCE

TALK-2 (E-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of TALK-2 of human origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-51223 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

TALK-2 (E-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).

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.

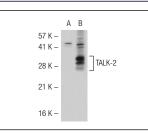
Molecular Weight of TALK-2: 36.9 kDa.

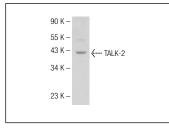
Positive Controls: TALK-2 (h): 293T Lysate: sc-114075 or HeLa whole cell lysate: sc-2200.

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.







TALK-2 (E-18): sc-51223. Western blot analysis of TALK-2 expression in non-transfected: sc-117752 (A) and human TALK-2 transfected: sc-114075 (B) 293T whole cell lysates.

TALK-2 (E-18): sc-51223. Western blot analysis of TALK-2 expression in HeLa whole cell lysate.

RESEARCH USE

For research use only, not for use in diagnostic procedures.



Try TALK-2 (F-6): sc-390435 or TALK-2 (A-5): sc-393384, our highly recommended monoclonal alternatives to TALK-2 (E-18).