

# TALK-2 (F-6): sc-390435

## 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 Langerhans islets and at lower levels in liver, placenta, heart and lung. TALK-2 is strongly- and specifically-activated by nitric oxide and dithiothreitol.

## CHROMOSOMAL LOCATION

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

## SOURCE

TALK-2 (F-6) is a mouse monoclonal antibody raised against amino acids 226-332 mapping near the C-terminus of TALK-2 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TALK-2 (F-6) is available conjugated to agarose (sc-390435 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390435 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390435 PE), fluorescein (sc-390435 FITC), Alexa Fluor<sup>®</sup> 488 (sc-390435 AF488), Alexa Fluor<sup>®</sup> 546 (sc-390435 AF546), Alexa Fluor<sup>®</sup> 594 (sc-390435 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-390435 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-390435 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-390435 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## 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 (F-6) is recommended for detection of TALK-2 of human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (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.

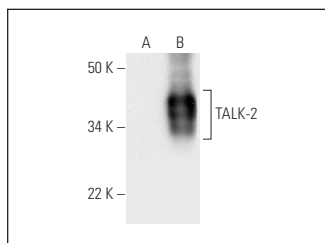
Molecular Weight of TALK-2: 37 kDa.

Positive Controls: TALK-2 (h): 293T Lysate: sc-114075.

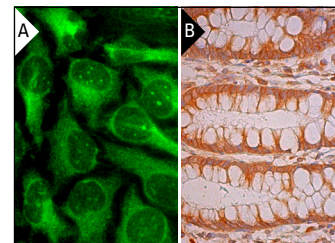
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



TALK-2 (F-6): sc-390435. 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 (F-6): sc-390435. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane and cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human rectum tissue showing membrane and cytoplasmic staining of glandular cells (B).

## SELECT PRODUCT CITATIONS

- Suzuki, Y., et al. 2017. Heterodimerization of two pore domain K<sup>+</sup> channel TASK1 and TALK2 in living heterologous expression systems. *PLoS ONE* 12: e0186252.
- Inoue, M., et al. 2018. Lack of p11 expression facilitates acidity-sensing function of TASK1 channels in mouse adrenal medullary cells. *FASEB J.* 33: 455-468.
- Wiedmann, F., et al. 2019. N-glycosylation-dependent regulation of hK<sub>2p</sub>17.1 currents. *Mol. Biol. Cell* 30: 1425-1436.

## 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) for detailed protocols and support products.