

TASK-2 (F-7): sc-271836

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 TWIK, TREK, TRAAK and TASK. TASK channels are highly sensitive to external pH in the physiological range. TASK-1 is expressed in brain and in rat heart, with high levels of expression in the right atrium. TASK-2, mainly expressed in kidney, is localized in cortical distal tubules and collecting ducts, suggesting a role in renal K⁺ transport. TASK-3 from rat cerebellum shares 54% identity with TASK-1, but less than 30% with TASK-2 and other tandem pore K⁺ channels.

CHROMOSOMAL LOCATION

Genetic locus: KCNK5 (human) mapping to 6p21.2; Kcnk5 (mouse) mapping to 14 A3.

SOURCE

TASK-2 (F-7) is a mouse monoclonal antibody raised against amino acids 330-499 mapping at the C-terminus of TASK-2 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TASK-2 (F-7) is available conjugated to agarose (sc-271836 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271836 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271836 PE), fluorescein (sc-271836 FITC), Alexa Fluor[®] 488 (sc-271836 AF488), Alexa Fluor[®] 546 (sc-271836 AF546), Alexa Fluor[®] 594 (sc-271836 AF594) or Alexa Fluor[®] 647 (sc-271836 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-271836 AF680) or Alexa Fluor[®] 790 (sc-271836 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

TASK-2 (F-7) is recommended for detection of TASK-2 of mouse, rat and 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for TASK-2 siRNA (h): sc-42341, TASK-2 siRNA (m): sc-42342, TASK-2 shRNA Plasmid (h): sc-42341-SH, TASK-2 shRNA Plasmid (m): sc-42342-SH, TASK-2 shRNA (h) Lentiviral Particles: sc-42341-V and TASK-2 shRNA (m) Lentiviral Particles: sc-42342-V.

Molecular Weight of TASK-2: 55 kDa.

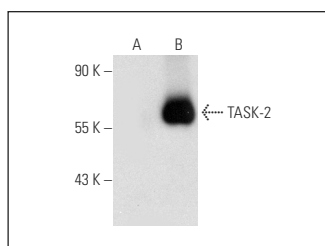
Molecular Weight of glycosylated TASK-2: 70 kDa.

Positive Controls: c4 whole cell lysate: sc-364186, PC-3 cell lysate: sc-2220 or TASK-2 (m): 293T Lysate: sc-123915.

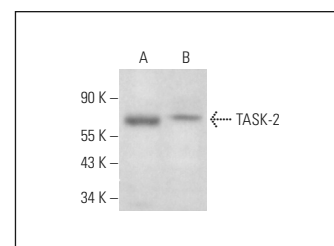
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BPHRP: sc-516102 or m-IgGκ BPHRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] 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 BPHRP-FITC: sc-516140 or m-IgGκ BPHRP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



TASK-2 (F-7): sc-271836. Western blot analysis of TASK-2 expression in non-transfected: sc-117752 (A) and mouse TASK-2 transfected: sc-123915 (B) 293T whole cell lysates.



TASK-2 (F-7): sc-271836. Western blot analysis of TASK-2 expression in c4 (A) and PC-3 (B) whole cell lysates.

SELECT PRODUCT CITATIONS

- Feng, B., et al. 2012. Colorectal cancer migration and invasion initiated by microRNA-106a. PLoS ONE 7: e43452.

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 for detailed protocols and support products.