

# TRPC4AP (B-10): sc-515186

## BACKGROUND

TRPC4AP (transient receptor potential cation channel, subfamily C, member 4 associated protein), also known as TRUSS or TRRP4AP, is a 797 amino acid protein that is expressed in a variety of tissues, with highest expression in liver, heart, testis and brain. Thought to function as a scaffolding protein, TRPC4AP interacts with TNF-R1 and may both link TNF-R1 to the IKK signalosome complex, and participate in the activation of NFκB p50, an event that occurs in response to TNF-R1 ligation. TRPC4AP exists as multiple alternatively spliced isoforms that are encoded by a gene which maps to human chromosome 20. Comprising approximately 2% of the human genome, chromosome 20 contains nearly 63 million bases that encode over 600 genes, some of which are associated with Creutzfeldt-Jakob disease, amyotrophic lateral sclerosis, spinal muscular atrophy, ring chromosome 20 epilepsy syndrome and Alagille syndrome.

## REFERENCES

1. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 608430. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
2. Soond, S.M., et al. 2003. TRUSS, a novel tumor necrosis factor receptor 1 scaffolding protein that mediates activation of the transcription factor NFκB. *Mol. Cell. Biol.* 23: 8334-8344.
3. Ville, D., et al. 2006. Early pattern of epilepsy in the ring chromosome 20 syndrome. *Epilepsia* 47: 543-549.
4. Tsang, H.T., et al. 2006. A systematic analysis of human CHMP protein interactions: additional MIT domain-containing proteins bind to multiple components of the human ESCRT III complex. *Genomics* 88: 333-346.

## CHROMOSOMAL LOCATION

Genetic locus: TRPC4AP (human) mapping to 20q11.22; *Trpc4ap* (mouse) mapping to 2 H1.

## SOURCE

TRPC4AP (B-10) is a mouse monoclonal antibody raised against amino acids 82-240 mapping near the N-terminus of TRPC4AP of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TRPC4AP (B-10) is available conjugated to agarose (sc-515186 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515186 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515186 PE), fluorescein (sc-515186 FITC), Alexa Fluor® 488 (sc-515186 AF488), Alexa Fluor® 546 (sc-515186 AF546), Alexa Fluor® 594 (sc-515186 AF594) or Alexa Fluor® 647 (sc-515186 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515186 AF680) or Alexa Fluor® 790 (sc-515186 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

TRPC4AP (B-10) is recommended for detection of TRPC4AP 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 TRPC4AP siRNA (h): sc-76758, TRPC4AP siRNA (m): sc-154692, TRPC4AP shRNA Plasmid (h): sc-76758-SH, TRPC4AP shRNA Plasmid (m): sc-154692-SH, TRPC4AP shRNA (h) Lentiviral Particles: sc-76758-V and TRPC4AP shRNA (m) Lentiviral Particles: sc-154692-V.

Molecular Weight of TRPC4AP isoforms: 91/60 kDa.

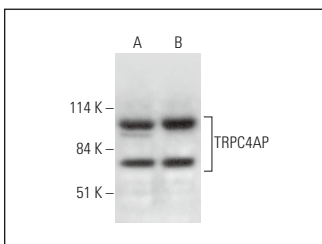
Positive Controls: MDA-MB-231 cell lysate: sc-2232, A549 cell lysate: sc-2413 or NIH/3T3 whole cell lysate: sc-2210.

## RECOMMENDED SUPPORT REAGENTS

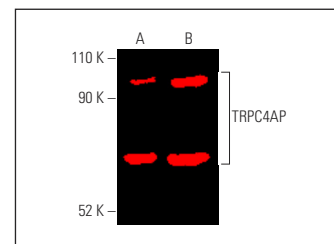
To ensure optimal results, the following support reagents are recommended:

- 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™ 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 BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



TRPC4AP (B-10): sc-515186. Western blot analysis of TRPC4AP expression in MDA-MB-231 (A) and A549 (B) whole cell lysates.



TRPC4AP (B-10): sc-515186. Near-Infrared western blot analysis of TRPC4AP expression in MDA-MB-231 (A) and NIH/3T3 (B) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgG<sub>1</sub> BP-CFL 790: sc-533666.

## 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.