

# TCAF1 (S-16): sc-240371

## BACKGROUND

TRPM8 (transient receptor potential cation channel, subfamily M, member 8) is a multi-pass membrane protein that is expressed at high levels in prostate. TRPM8 functions as a receptor-activated cation channel that is permeable to monovalent cations (such as sodium and potassium) and divalent  $\text{Ca}^{2+}$  and is involved in the detection of temperature sensations (such as the feeling of coolness) throughout the body. TRPM8 is overexpressed in prostate tumors, as well as in colon, breast and lung cancers. TCAF1 (TRPM8 channel-associated factor 1), also known as FAM115A, is a 921 amino acid plasma membrane protein that is expressed as two alternatively spliced isoforms and belong to the TCAF family. TCAF1 isoform 2 is expressed in prostate and strongly expressed in cancerous prostate tissue. TCAF1 consists of a peptidase M60 domain and a C-terminal region that is necessary for the channel activity stimulation. TCAF1 along with family member TCAF2 interact with plasma membrane cation channel TRPM8 and promotes its trafficking to the cell surface. TCAF1 is encoded by a gene located on human chromosome 7q35.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: TCAF1 (human) mapping to 7q35; Tcaf1 (mouse) mapping to 6 B2.1.

## SOURCE

TCAF1 (S-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TCAF1 of human origin.

## PRODUCT

Each vial contains 200  $\mu\text{g}$  IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-240371 P, (100  $\mu\text{g}$  peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

TCAF1 (S-16) is recommended for detection of TCAF1 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).

TCAF1 (S-16) is also recommended for detection of TCAF1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TCAF1 siRNA (h): sc-89631, TCAF1 siRNA (m): sc-145019, TCAF1 shRNA Plasmid (h): sc-89631-SH, TCAF1 shRNA Plasmid (m): sc-145019-SH, TCAF1 shRNA (h) Lentiviral Particles: sc-89631-V and TCAF1 shRNA (m) Lentiviral Particles: sc-145019-V.

Molecular Weight of TCAF1: 102 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.