

# TMEM40 (A-9): sc-393601

## BACKGROUND

Transmembrane protein 40 (TMEM40) is a 233 amino acid multi-pass membrane protein. Existing as two isoforms, TMEM40 is localized to chromosome 3p25.2 and is believed to play a role in collagen induced arthritis (CIA). Chromosome 3 is made up of about 214 million bases encoding over 1,100 genes. Notably, there is a chemokine receptor gene cluster and a variety of human cancer related loci on chromosome 3. Particular regions of the chromosome 3 short arm are deleted in many types of cancer cells, and key tumor suppressing genes on chromosome 3 encode apoptosis mediator RASSF1, cell migration regulator HYAL1, and angiogenesis suppressor SEMA3B. Marfan syndrome, porphyria, von Hippel-Lindau syndrome, osteogenesis imperfecta and Charcot-Marie-Tooth disease are a few of the numerous genetic diseases associated with chromosome 3.

## CHROMOSOMAL LOCATION

Genetic locus: TMEM40 (human) mapping to 3p25.2.

## SOURCE

TMEM40 (A-9) is a mouse monoclonal antibody raised against amino acids 1-51 mapping at the N-terminus of TMEM40 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.

TMEM40 (A-9) is available conjugated to agarose (sc-393601 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393601 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393601 PE), fluorescein (sc-393601 FITC), Alexa Fluor® 488 (sc-393601 AF488), Alexa Fluor® 546 (sc-393601 AF546), Alexa Fluor® 594 (sc-393601 AF594) or Alexa Fluor® 647 (sc-393601 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393601 AF680) or Alexa Fluor® 790 (sc-393601 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

TMEM40 (A-9) is recommended for detection of TMEM40 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 TMEM40 siRNA (h): sc-77884, TMEM40 shRNA Plasmid (h): sc-77884-SH and TMEM40 shRNA (h) Lentiviral Particles: sc-77884-V.

Molecular Weight (predicted) of TMEM40: 25 kDa.

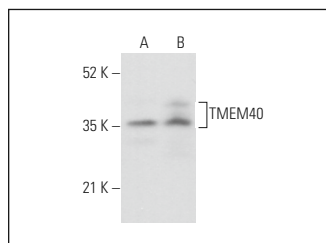
Molecular Weight (observed) of TMEM40: 19-37 kDa.

Positive Controls: SK-BR-3 cell lysate: sc-2218 or RT-4 whole cell lysate: sc-364257.

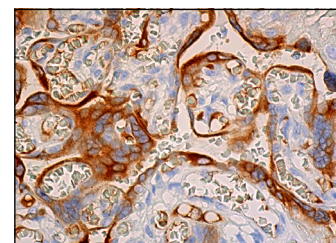
## RECOMMENDED SUPPORT REAGENTS

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. 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



TMEM40 (A-9): sc-393601. Western blot analysis of TMEM40 expression in RT-4 (A) and SK-BR-3 (B) whole cell lysates.



TMEM40 (A-9): sc-393601. Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing membrane and cytoplasmic staining of trophoblastic cells.

## SELECT PRODUCT CITATIONS

1. Zhang, Q., et al. 2019. High expression of TMEM40 contributes to progressive features of tongue squamous cell carcinoma. *Oncol. Rep.* 41: 154-164.
2. Yu, L., et al. 2021. Decreased TMEM40 expression is associated with malignant behavior of cutaneous squamous cell carcinoma and inhibits tumor progression. *Oncol. Lett.* 22: 606.

## 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) for detailed protocols and support products.