

# TMEM2 (D-15): sc-165737

## BACKGROUND

TMEM2 (transmembrane protein 2) is a 1,383 amino acid single-pass membrane protein that is widely expressed and belongs to the TMEM2 family. Containing a G8 domain and three PbH1 repeats, TMEM2 may be required for heart morphogenesis. TMEM2 is encoded by a gene mapping to human chromosome 9, which consists about 145 million bases, 4% of the human genome and encodes nearly 900 genes. Considered to play a role in gender determination, deletion of the distal portion of 9p can lead to development of male to female sex reversal, the phenotype of a female with a male X,Y genotype. Hereditary hemorrhagic telangiectasia, which is characterized by harmful vascular defects, is associated with the chromosome 9 gene encoding endoglin protein, ENG. Familial dysautonomia is also associated with chromosome 9 though through the gene IKBKAP. Notably, chromosome 9 encompasses the largest interferon family gene cluster. Chromosome 9 is partnered with chromosome 22 in the translocation leading to the aberrant production of BCR-ABL fusion protein often found in leukemias.

## REFERENCES

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- Cottin, V., et al. 2007. Pulmonary vascular manifestations of hereditary hemorrhagic telangiectasia (Rendu-Osler disease). *Respiration* 74: 361-378.
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- Hims, M.M., et al. 2007. A humanized IKBKAP transgenic mouse models a tissue-specific human splicing defect. *Genomics* 90: 389-396.
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## CHROMOSOMAL LOCATION

Genetic locus: TMEM2 (human) mapping to 9q21.13; Tmem2 (mouse) mapping to 19 B.

## SOURCE

TMEM2 (D-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TMEM2 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-165737 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

TMEM2 (D-15) is recommended for detection of TMEM2 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); non cross-reactive with other TMEM family members .

TMEM2 (D-15) is also recommended for detection of TMEM2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TMEM2 siRNA (h): sc-92585, TMEM2 siRNA (m): sc-154435, TMEM2 shRNA Plasmid (h): sc-92585-SH, TMEM2 shRNA Plasmid (m): sc-154435-SH, TMEM2 shRNA (h) Lentiviral Particles: sc-92585-V and TMEM2 shRNA (m) Lentiviral Particles: sc-154435-V.

Molecular Weight of TMEM2: 154 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.