

TMEM111 (F-10): sc-374005

BACKGROUND

TMEM111, also known as POB is a 261 amino acid multi-pass membrane protein that exists as multiple alternatively spliced isoforms which are encoded by a gene that maps to human chromosome 3. Chromosome 3 is made up of about 214 million bases encoding over 1,100 genes, including a chemokine receptor (CKR) gene cluster and a variety of human cancer-related gene loci. Key tumor suppressing genes on chromosome 3 include those that encode the apoptosis mediator RASSF1, the cell migration regulator HYAL1 and the 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.

REFERENCES

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- Braga, E.A., et al. 2003. New tumor suppressor genes in hot spots of human chromosome 3: new methods of identification. *Mol. Biol.* 37: 194-211.
- Tsend-Ayush, E., et al. 2004. Plasticity of human chromosome 3 during primate evolution. *Genomics* 83: 193-202.
- Yue, Y., et al. 2005. Genomic structure and paralogous regions of the inversion breakpoint occurring between human chromosome 3p12.3 and orangutan chromosome 2. *Cytogenet. Genome Res.* 108: 98-105.
- Yue, Y., et al. 2005. Comparative cytogenetics of human chromosome 3p25.3 reveals a hot spot for ectopic recombination in hominoid evolution. *Genomics* 85: 36-47.
- Darai, E., et al. 2005. Evolutionarily plastic regions at human 3p25.3 coincide with tumor breakpoints identified by the "elimination test". *Genomics* 86: 1-12.
- Muzny, D.M., et al. 2006. The DNA sequence, annotation and analysis of human chromosome 3. *Nature* 440: 1194-1198.

CHROMOSOMAL LOCATION

Genetic locus: EMC3 (human) mapping to 3p25.3; Emc3 (mouse) mapping to 6 E3.

SOURCE

TMEM111 (F-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 51-83 within an internal region of TMEM111 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.

Blocking peptide available for competition studies, sc-374005 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

TMEM111 (F-10) is recommended for detection of TMEM111 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).

TMEM111 (F-10) is also recommended for detection of TMEM111 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for TMEM111 siRNA (h): sc-77987, TMEM111 siRNA (m): sc-154350, TMEM111 shRNA Plasmid (h): sc-77987-SH, TMEM111 shRNA Plasmid (m): sc-154350-SH, TMEM111 shRNA (h) Lentiviral Particles: sc-77987-V and TMEM111 shRNA (m) Lentiviral Particles: sc-154350-V.

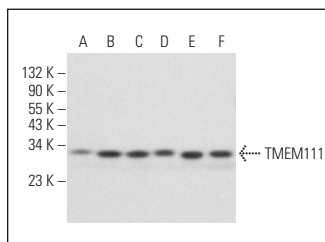
Molecular Weight of TMEM111: 30 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, BC₃H1 cell lysate: sc-2299 or SJRH30 cell lysate: sc-2287.

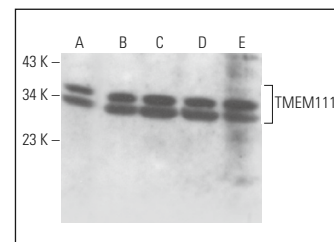
RECOMMENDED SUPPORT REAGENTS

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



TMEM111 (F-10): sc-374005. Western blot analysis of TMEM111 expression in SJRH30 (A), SolB (B), C2C12 (C), A-673 (D), A-10 (E) and L6 (F) whole cell lysates.



TMEM111 (F-10): sc-374005. Western blot analysis of TMEM111 expression in SJRH30 (A), BC₃H1 (B), NIH/3T3 (C) and 3T3-L1 (D) whole cell lysates and rat heart tissue extract (E).

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.