SANTA CRUZ BIOTECHNOLOGY, INC.

TMEM116 (A-16): sc-137852

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

TMEM116 is a 228 amino acid encoded by a gene that maps to human chromosome 12. Encoding over 1,100 genes within 132 million bases, chromosome 12 makes up about 4.5% of the human genome. A number of skeletal deformities are linked to chromosome 12 including hypochondrogenesis, achondrogenesis and Kniest dysplasia. Noonan syndrome, which includes heart and facial developmental defects among the primary symptoms, is caused by a mutant form of PTPN11 gene product, SH-PTP2. Chromosome 12 is also home to a homeobox gene cluster which encodes crucial transcription factors for morphogenesis, and the natural killer complex gene cluster encoding C-type lectin proteins which mediate the NK cell response to MHC I interaction. Trisomy 12p leads to facial development defects, seizure disorders and a host of other symptoms varying in severity depending on the extent of mosaicism and is most severe in cases of complete trisomy.

CHROMOSOMAL LOCATION

Genetic locus: TMEM116 (human) mapping to 12q24.13; Tmem116 (mouse) mapping to 5 F.

SOURCE

TMEM116 (A-16) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of TMEM116 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-137852 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

TMEM116 (A-16) is recommended for detection of TMEM116 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other TMEM family members.

TMEM116 (A-16) is also recommended for detection of TMEM116 in additional species, including equine.

Suitable for use as control antibody for TMEM116 siRNA (h): sc-95689, TMEM116 siRNA (m): sc-154351, TMEM116 shRNA Plasmid (h): sc-95689-SH, TMEM116 shRNA Plasmid (m): sc-154351-SH, TMEM116 shRNA (h) Lentiviral Particles: sc-95689-V and TMEM116 shRNA (m) Lentiviral Particles: sc-154351-V.

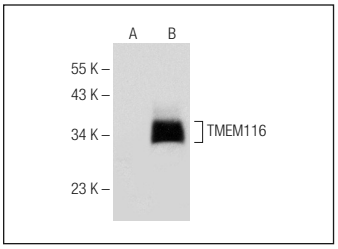
Molecular Weight of TMEM116: 27 kDa.

Positive Controls: TEMEM116 (m): 239T lysate:sc-124109.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



TMEM116 (A-16): sc-137852. Western blot analysis of TMEM116 expression in non-transfected: sc-117752 (**A**) and mouse TMEM116 transfected: sc-124109 (**B**) 293T whole cell lysates.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS Satisfaction Guaranteed

Try **TMEM116 (B-3): sc-515375**, our highly recommended monoclonal alternative to TMEM116 (A-16).