SANTA CRUZ BIOTECHNOLOGY, INC.

TMEM209 (F-5): sc-515223

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

TMEM209 is a 561 amino acid protein encoded by a gene mapping to human chromosome 7. Chromosome 7 is about 158 milllion bases long, encodes over 1000 genes and makes up about 5% of the human genome. Chromosome 7 has been linked to osteogenesis imperfecta, Pendred syndrome, lissencephaly, citrullinemia and Shwachman-Diamond syndrome. The deletion of a portion of the q arm of chromosome 7 is associated with Williams-Beuren syndrome, a condition characterized by mild mental retardation, an unusual comfort and friendliness with strangers and an elfin appearance. Deletions of portions of the q arm of chromosome 7 are also seen in a number of myeloid disorders including cases of acute myelogenous leukemia and myelodysplasia.

REFERENCES

1. Tsipouras, P., et al. 1983. Restriction fragment length polymorphism associated with the pro alpha 2(I) gene of human type I procollagen. Application to a family with an autosomal dominant form of osteogenesis imperfecta. J. Clin. Invest. 72: 1262-1267.
2. Liang, H., et al. 1998. Molecular anatomy of chromosome 7q deletions in myeloid neoplasms: evidence for multiple critical loci. Proc. Natl. Acad. Sci. USA 95: 3781-3785.
3. Hillier, L.W., et al. 2003. The DNA sequence of human chromosome 7. Nature 424: 157-164.
4. Eckert, M.A., et al. 2006. The neurobiology of Williams syndrome: cascading influences of visual system impairment? Cell. Mol. Life Sci. 63: 1867-1875.
5. Osborne, L.R., et al. 2006. Williams-Beuren syndrome diagnosis using fluorescence *in situ* hybridization. Methods Mol. Med. 126:113-128.
6. Reiner, O., et al. 2006. Lissencephaly 1 linking to multiple diseases: mental retardation, neurodegeneration, schizophrenia, male sterility, and more. Neuromolecular Med. 8: 547-565.

CHROMOSOMAL LOCATION

Genetic locus: TMEM209 (human) mapping to 7q32.2; Tmem209 (mouse) mapping to 6 A3.3.

SOURCE

TMEM209 (F-5) is a mouse monoclonal antibody raised against amino acids 81-248 mapping at the N-terminus of TMEM209 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chian in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TMEM209 (F-5) is available conjugated to agarose (sc-515223 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-515223 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515223 PE), fluorescein (sc-515223 FITC), Alexa Fluor® 488 (sc-515223 AF488), Alexa Fluor® 546 (sc-515223 AF546), Alexa Fluor® 594 (sc-515223 AF594) or Alexa Fluor® 647 (sc-515223 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515223 AF680) or Alexa Fluor® 790 (sc-515223 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

TMEM209 (F-5) is recommended for detection of TMEM209 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).

Suitable for use as control antibody for TMEM209 siRNA (h): sc-89783, TMEM209 siRNA (m): sc-154441, TMEM209 shRNA Plasmid (h): sc-89783-SH, TMEM209 shRNA Plasmid (m): sc-154441-SH, TMEM209 shRNA (h) Lentiviral Particles: sc-89783-V and TMEM209 shRNA (m) Lentiviral Particles: sc-154441-V.

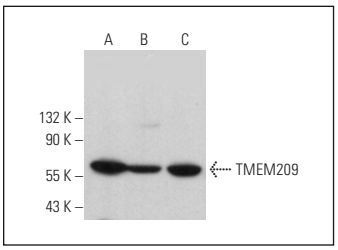
Molecular Weight of TMEM209: 63 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, A-431 whole cell lysate: sc-2201 or Jurkat whole cell lysate: sc-2204.

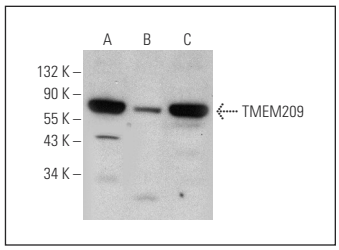
RECOMMENDED SUPPORT REAGENTS

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



TMEM209 (F-5): sc-515223. Western blot analysis of TMEM209 expression in HeLa (**A**), SK-BR-3 (**B**) and K-562 (**C**) whole cell lysates.



TMEM209 (F-5): sc-515223. Western blot analysis of TMEM209 expression in HeLa (**A**), A-431 (**B**) and Jurkat (**C**) whole cell lysates.

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.

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