

TMEM173 (C-10): sc-518172

BACKGROUND

TMEM173 (transmembrane protein 173) is a 379 amino acid protein encoded by a gene mapping to human chromosome 5. With 181 million base pairs encoding around 1,000 genes, chromosome 5 is about 6% of human genomic DNA. It is associated with Cockayne syndrome through the ERCC8 gene and familial adenomatous polyposis through the adenomatous polyposis coli (APC) tumor suppressor gene. Treacher Collins syndrome is also chromosome 5 associated and is caused by insertions or deletions within the TCOF1 gene. Deletion of the p arm of chromosome 5 leads to Cri du chat syndrome. Deletion of 5q or chromosome 5 altogether is common in therapy-related acute myelogenous leukemias and myelodysplastic syndrome.

REFERENCES

1. Dixon, M.J., et al. 1991. The gene for Treacher Collins syndrome maps to the long arm of chromosome 5. *Am. J. Hum. Genet.* 49: 17-22.
2. Saltman, D.L., et al. 1993. A physical map of 15 loci on human chromosome 5q23-q33 by two-color fluorescence *in situ* hybridization. *Genomics* 16: 726-732.
3. Kadmon, M., et al. 2001. Duodenal adenomatosis in familial adenomatous polyposis coli. A review of the literature and results from the Heidelberg Polyposis Register. *Int. J. Colorectal Dis.* 16: 63-75.
4. South, S.T., et al. 2006. A new genomic mechanism leading to Cri du chat syndrome. *Am. J. Med. Genet. A* 140: 2714-2720.
5. Aretz, S., et al. 2007. Somatic APC mosaicism: a frequent cause of familial adenomatous polyposis (FAP). *Hum. Mutat.* 28: 985-992.

CHROMOSOMAL LOCATION

Genetic locus: TMEM173 (human) mapping to 5q31.2; Tmem173 (mouse) mapping to 18 B2.

SOURCE

TMEM173 (C-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 360-378 within a C-terminal cytoplasmic domain of TMEM173 of mouse 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.

TMEM173 (C-10) is available conjugated to agarose (sc-518172 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-518172 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-518172 PE), fluorescein (sc-518172 FITC), Alexa Fluor® 488 (sc-518172 AF488), Alexa Fluor® 546 (sc-518172 AF546), Alexa Fluor® 594 (sc-518172 AF594) or Alexa Fluor® 647 (sc-518172 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-518172 AF680) or Alexa Fluor® 790 (sc-518172 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

TMEM173 (C-10) is recommended for detection of TMEM173 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 TMEM173 siRNA (h): sc-92042, TMEM173 siRNA (m): sc-154411, TMEM173 shRNA Plasmid (h): sc-92042-SH, TMEM173 shRNA Plasmid (m): sc-154411-SH, TMEM173 shRNA (h) Lentiviral Particles: sc-92042-V and TMEM173 shRNA (m) Lentiviral Particles: sc-154411-V.

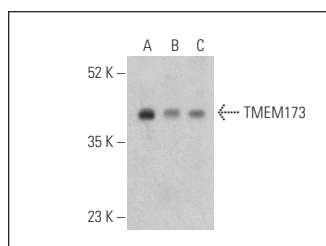
Molecular Weight of TMEM173: 42 kDa.

Positive Controls: THP-1 cell lysate: sc-2238, HeLa whole cell lysate: sc-2200 or Hep G2 cell lysate: sc-2227.

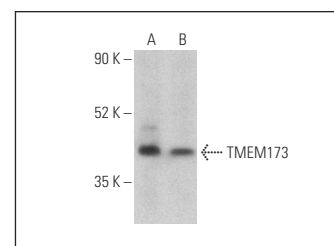
RECOMMENDED SUPPORT REAGENTS

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



TMEM173 (C-10): sc-518172. Western blot analysis of TMEM173 expression in THP-1 (A), HT-29 (B) and HL-60 (C) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.



TMEM173 (C-10): sc-518172. Western blot analysis of TMEM173 expression in HeLa (A) and Hep G2 (B) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.

SELECT PRODUCT CITATIONS

1. Xu, R., et al. 2023. Invasive FoxM1 phosphorylated by PLK1 induces the polarization of tumor-associated macrophages to promote immune escape and metastasis, amplified by IFITM1. *J. Exp. Clin. Cancer Res.* 42: 302.

STORAGE

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

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