

MS4A12 (h): 293T Lysate: sc-114357

BACKGROUND

MS4A (membrane-spanning 4-domain family, subfamily A) is a large family of proteins that includes at least 26 members in mouse and humans. Flanked by amino- and carboxyl-cytoplasmic regions, MS4A family members contain four highly conserved transmembrane domains. CD20, the most well-known MS4A family member, is a B-cell-specific molecule that functions as a calcium-permeable cation channel and is known to accelerate the G_0 to G_1 progression induced by IGF-1. Several other MS4A family members are likely to be components of oligomeric cell surface complexes involved in signal transduction in diverse cell lineages. MS4A12 (membrane-spanning 4-domains, subfamily A, member 12) is a 267 amino acid multi-pass membrane protein that plays a role in signal transduction and is expressed primarily in colonocytes. The gene encoding MS4A12 maps to human chromosome 11q12.2.

REFERENCES

1. Ishibashi, K., Suzuki, M., Sasaki, S. and Imai, M. 2001. Identification of a new multigene four-transmembrane family (MS4A) related to CD20, HTm4 and β subunit of the high-affinity IgE receptor. *Gene* 264: 87-93.
2. Liang, Y. and Tedder, T.F. 2001. Identification of a CD20-, FcepsilonRI β -, and HTm4-related gene family: sixteen new MS4A family members expressed in human and mouse. *Genomics* 72: 119-127.
3. Liang, Y., Buckley, T.R., Tu, L., Langdon, S.D. and Tedder, T.F. 2001. Structural organization of the human MS4A gene cluster on Chromosome 11q12. *Immunogenetics* 53: 357-368.
4. Gingras, M.C., Lapillonne, H. and Margolin, J.F. 2001. CFFM4: a new member of the CD20/Fc ϵ RI β family. *Immunogenetics* 53: 468-476.
5. Online Mendelian Inheritance in Man, OMIM™. 2001 Johns Hopkins University, Baltimore, MD. MIM Number: 606550. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
6. Koslowski, M., Sahin, U., Dhaene, K., Huber, C. and Türeci, O. 2008. MS4A12 is a colon-selective store-operated calcium channel promoting malignant cell processes. *Cancer Res.* 68: 3458-3466.
7. Koslowski, M., Türeci, O., Huber, C. and Sahin, U. 2009. Selective activation of tumor growth-promoting Ca^{2+} channel MS4A12 in colon cancer by caudal type homeobox transcription factor CDX2. *Mol. Cancer* 8: 77.

CHROMOSOMAL LOCATION

Genetic locus: MS4A12 (human) mapping to 11q12.2.

PRODUCT

MS4A12 (h): 293T Lysate represents a lysate of human MS4A12 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

APPLICATIONS

MS4A12 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive MS4A12 antibodies. Recommended use: 10-20 μ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

PROTOCOLS

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