SANTA CRUZ BIOTECHNOLOGY, INC.

MS4A7 (K-15): sc-168653



Die America Countries

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. MS4A7 (membrane-spanning 4-domains subfamily A member 7), also known as CFFM4 (CD20/FC- ϵ -RI- β family member 4), 4SPAN2 (4-span transmembrane protein 2) and CD20L4 (CD20 antigen-like 4), is a 240 amino acid multi-pass membrane protein that may be involved in signal transduction due to the presence of multiple phosphorylation sites on its C-terminus.

REFERENCES

- 1. Ishibashi, K., et al. 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.
- Liang, Y., et al. 2001. Identification of a CD20-, FcεRIβ-, and HTm4-related gene family: sixteen new MS4A family members expressed in human and mouse. Genomics 72: 119-127.
- 3. Liang, Y., et al. 2001. Structural organization of the human MS4A gene cluster on Chromosome 11q12. Immunogenetics 53: 357-368.
- Gingras, M.C., et al. 2001. CFFM4: a new member of the CD20/FcεRIβ family. Immunogenetics 53: 468-476.
- 5. Online Mendelian Inheritance in Man, OMIM™. 2001. Johns Hopkins University, Baltimore, MD. MIM Number: 606502. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- 6. Ota, T., et al. 2004. Complete sequencing and characterization of 21,243 full-length human cDNAs. Nat. Genet. 36: 40-45.
- 7. Brink, T.C., et al. 2008. The origins of human embryonic stem cells: a biological conundrum. Cells Tissues Organs 188: 9-22.

CHROMOSOMAL LOCATION

Genetic locus: Ms4a7 (mouse) mapping to 19 A.

SOURCE

MS4A7 (K-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of MS4A7 of mouse origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-168653 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MS4A7 (K-15) is recommended for detection of MS4A7 of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with other MS4A family members.

Suitable for use as control antibody for MS4A7 siRNA (m): sc-149656, MS4A7 shRNA Plasmid (m): sc-149656-SH and MS4A7 shRNA (m) Lentiviral Particles: sc-149656-V.

Molecular Weight of MS4A7: 26 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

Store at 4° C, **D0 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.

PROTOCOLS

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

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 **Europe** +00800 4573 8000 49 6221 4503 0 **www.scbt.com**