

Anti-MS4A4A [5C12] Standard Size Ab01374-13.12

This chimeric human antibody was made using the variable domain sequences of the original Mouse IgG1 format, for improved compatibility with existing reagents, assays and techniques.

Isotype and Format: Human IgG4-S228P, Lambda

Clone Number: 5C12

Alternative Name(s) of Target: Four-span transmembrane protein 1; human membrane-spanning 4-domains subfamily A member 4A; CD20 antigen-like 1; (MS4A4A)-GFP; MS4A4; 4SPAN1; MS4A

UniProt Accession Number of Target Protein: Q96JQ5

Published Application(s): IP, FC

Published Species Reactivity: Human

Immunogen: This antibody was generated by immunizing C57BL/6 mice against mouse cell line 300-19 expressing transfected human membrane-spanning 4-domains subfamily A member 4A (MS4A4A)-GFP.

Specificity: This antibody is specific for human extracellular MS4A4A. 5C12 mAb only partially cross-blocked either 4H2 (Ab01373) and 3F2 (Ab01375) and therefore probably detects a unique or overlapping epitope (Sanyal et al., 2017; pmid: 28303902). 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 connected by short extracellular and cytoplasmic loops. MS4A4A is likely to be a component of oligomeric cell surface complexes involved in signal transduction in diverse cell lineages.

Application Notes: 5C12 is recommended for the detection and analysis of expression of MS4A4A. Importantly, MS4A4A has been shown to be a marker for M2 macrophages and plasma cells and to be overexpressed in multiple myelomas, suggesting a potential role in targeting alternatively activated macrophages such as tumor-associated macrophages, and in the treatment of multiple myeloma and mantle cell lymphoma (Sanyal et al., 2017; pmid: 28303902). The antibody 5C12 can be successfully used for the detection of MS4A4A-expressing cells via flow cytometry (Sanyal et al., 2017; pmid: 28303902). Finally, specificity of this antibody was additionally confirmed via immunoprecipitation of lysates of BJAB MS4A4A-HA cells (Sanyal et al., 2017; pmid: 28303902).

Antibody First Published in: Sanyal et al. MS4A4A: a novel cell surface marker for M2 macrophages and plasma cells. Immunol Cell Biol. 2017 Aug;95(7):611-619. doi: 10.1038/icb.2017.18. Epub 2017 Mar 17.

[PMID:28303902](#)

Note on publication: This article describes the generation and characterization of the antibody 5C12.

Product Form

Size: 200 µg Purified antibody.

Purification: Protein A affinity purified

Supplied In: PBS with 0.02% Proclin 300.

Storage Recommendation: Store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C.

Concentration:

1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.