

## Datasheet

### MS4A1 monoclonal antibody, clone LT20 (FITC)

**Catalog Number:** MAB4385

**Regulatory Status:** For research use only (RUO)

**Product Description:** Mouse monoclonal antibody raised against native MS4A1.

**Clone Name:** LT20

**Immunogen:** Native purified MS4A1 from normal human lymphocytes from lymph node.

**Host:** Mouse

**Theoretical MW (kDa):** 33-37

**Reactivity:** Human

**Applications:** Flow Cyt

(See our web site product page for detailed applications information)

**Protocols:** See our web site at

<http://www.abnova.com/support/protocols.asp> or product page for detailed protocols

**Specificity:** This antibody reacts with CD20 (Bp35), a 33-37 kDa non-glycosylated membrane receptor with four transmembrane domains, expressed on B lymphocytes (it is lost on plasma cells), follicular dendritic cells, and at low levels on peripheral blood T lymphocytes.

**Form:** Liquid

**Conjugation:** FITC

**Isotype:** IgG2a

**Recommend Usage:** Flow Cytometry (20 ul in human blood cells 100 ul in whole blood or 10<sup>6</sup> cells in a suspension)

The optimal working dilution should be determined by the end user.

**Storage Buffer:** In PBS (0.2% BSA, 0.09% sodium azide)

**Storage Instruction:** Store in the dark at 4 °C. Do not freeze.

Avoid prolonged exposure to light.

Aliquot to avoid repeated freezing and thawing.

**Entrez GeneID:** 931

**Gene Symbol:** MS4A1

**Gene Alias:** B1, Bp35, CD20, LEU-16, MGC3969, MS4A2, S7

**Gene Summary:** This gene encodes a member of the membrane-spanning 4A gene family. Members of this nascent protein family are characterized by common structural features and similar intron/exon splice boundaries and display unique expression patterns among hematopoietic cells and nonlymphoid tissues. This gene encodes a B-lymphocyte surface molecule which plays a role in the development and differentiation of B-cells into plasma cells. This family member is localized to 11q12, among a cluster of family members. Alternative splicing of this gene results in two transcript variants which encode the same protein. [provided by RefSeq]

#### References:

1. The biological activity of human CD20 monoclonal antibodies is linked to unique epitopes on CD20. Teeling JL, Mackus WJ, Wiegman LJ, van den Brakel JH, Beers SA, French RR, van Meerten T, Ebeling S, Vink T, Sloodstra JW, Parren PW, Glennie MJ, van de Winkel JG. *J Immunol.* 2006 Jul 1;177(1):362-71.
2. CD20-induced lymphoma cell death is independent of both caspases and its redistribution into triton X-100 insoluble membrane rafts. Chan HT, Hughes D, French RR, Tutt AL, Walshe CA, Teeling JL, Glennie MJ, Cragg MS. *Cancer Res.* 2003 Sep 1;63(17):5480-9.
3. Alanine-170 and proline-172 are critical determinants for extracellular CD20 epitopes; heterogeneity in the fine specificity of CD20 monoclonal antibodies is defined by additional requirements imposed by both amino acid sequence and quaternary structure. Polyak MJ, Deans JP. *Blood.* 2002 May 1;99(9):3256-62.