SONY

Product Data Sheet

Pacific Blue™ anti-human CD20

Catalog # / Size: 2111600 / 100 µg
2111595 / 25 µg

2111640 / 100 tests

Clone: 2H7

Isotype: Mouse IgG2b, κ

Immunogen: Human tonsillar B cells

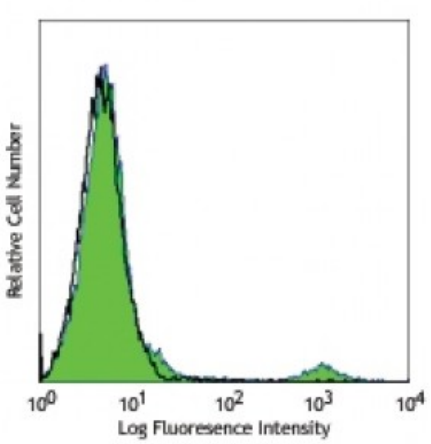
Reactivity: Human

Preparation: The antibody was purified by affinity chromatography, and conjugated with Pacific Blue™ under optimal conditions. The solution is free of unconjugated Pacific Blue™.

Formulation: test size: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA). microg sizes: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

Workshop Number: IV B201

Concentration: test size: lot-specific; microg sizes: 0.5 mg/ml



Human peripheral blood lymphocytes were stained with anti-CD20 (clone 2H7) Pacific Blue™ (filled histogram), or mouse IgG2b, κ Pacific Blue™ (open histogram).

Applications:

Applications: Flow Cytometry

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis.
For test size, the suggested use of this reagent for immunofluorescent staining is 5 microL per 10^6 cells in 100 microL volume.
For microg sizes, the suggested use of this reagent for immunofluorescent staining is ≤0.5 microg per 10^6 cells in 100 microL volume.
It is recommended that the reagent be titrated for optimal performance for each application.

* Pacific Blue™ has a maximum emission of 455 nm when it is excited at 405 nm. Prior to using Pacific Blue™ conjugate for flow cytometric analysis, please verify your flow cytometer's capability of exciting and detecting the fluorochrome.

Application Notes: The epitope recognized by clone 2H7 has been mapped to the sequence YNCEPANPSEKNSPST which lies in the large extracellular loop of human CD20. Additional reported applications (for the relevant formats) include: immunoprecipitation4 and immunohistochemical staining of acetone-fixed frozen sections5.

Application References:

1. Schlossman S, *et al.* 1995. Leucocyte Typing V. Oxford University Press. New York.
2. Knapp W, *et al.* 1989. Leucocyte Typing IV. Oxford University Press. New York.
3. McMichael A, *et al.* Eds. 1987. Leucocyte Typing III Oxford University Press. New York.
4. Polyak MJ, *et al.* 2002. *Blood* 99:3256. (IP)

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5. Mack CL, *et al.* 2004. *Pediatr. Res.* 56:79. (IHC)
6. Del Prete GQ, *et al.* 2014. *Antimicrob Agents Chemother.* 58:6790. PubMed
7. Li H, *et al.* 2015. *J Infect Dis.* 211:1717. PubMed

Description: CD20 is a 33-37 kD, four transmembrane spanning protein, also known as B1 and Bp35. CD20 is expressed on pre-B-cells, resting and activated B cells (not plasma cells), some follicular dendritic cells, and at low levels on a T cell subset. CD20 is heavily phosphorylated on activated B cells and malignant B cells. Homo-oligomeric complexes of CD20 are thought to form Ca^{2+} conductive ion channels in the plasma membrane of B cells. The CD20 molecule is involved in B-cell activation and is associated with various Src family kinases (Lyn, Lck, Fyn). It exists in a complex with MHC class I and II, CD53, CD81, and CD82.

Antigen References:

1. Hultin L, *et al.* 1993. *Cytometry* 14:196.
2. Tedder T, *et al.* 1994. *Immunol. Today* 15:450.