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# Product Data Sheet

## Brilliant Violet 650™ anti-human CD20

**Catalog # / Size:** 302335 / 25 tests

**Clone:** 2H7

**Isotype:** Mouse IgG2b, κ

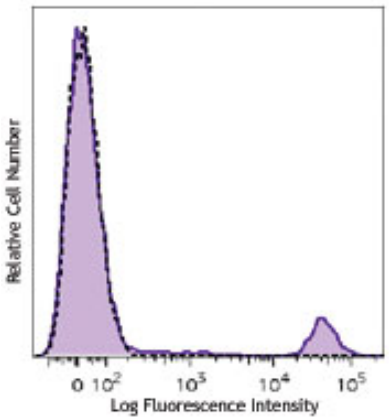
**Workshop Number:** IV B201

**Reactivity:** Human, **Cross-Reactivity:** Chimpanzee, Baboon, Cynomolgus, Rhesus, Pigtailed Macaque, Capuchin Monkey, Squirrel Monkey

**Preparation:** The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 650™ under optimal conditions. The solution is free of unconjugated Brilliant Violet 650™ and unconjugated antibody.

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.5% (w/v) BSA (origin USA).

**Storage:** The antibody solution should be stored undiluted at 4°C and protected from prolonged exposure to light. **Do not freeze.**




*Human peripheral blood lymphocytes were stained with CD20 (clone 2H7) Brilliant Violet 650™.*

# Applications:

**Applications:** FC - *Quality tested*

**Recommended Usage:** Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For immunofluorescent staining, the suggested use of this reagent is ≤5 µl per million cells or 5 µl per 100 µl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

Brilliant Violet 650™ excites at 405 nm and emits at 645 nm. The bandpass filter 660/20 nm is recommended for detection, although filter optimization may be required depending on other fluorophores used. **Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel.** Refer to your instrument manual or manufacturer for support. Brilliant Violet 650™ is a trademark of Sirigen Group Ltd.

**Application Notes:** Additional reported applications (for the relevant formats) include: immunoprecipitation[4] and immunohistochemical staining of acetone-fixed frozen sections[5].

**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)
5. Mack CL, *et al.* 2004. *Pediatr. Res.* 56:79. (IHC)


**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.


**Related Products:**

| Product | Clone | Application |
|---|---|---|
| Cell Staining Buffer | | FC, ICC, ICFC |
| RBC Lysis Buffer (10X) | | FC, ICFC |
| Human TruStain FcX™ (Fc Receptor Blocking Solution) | | FC, ICC, ICFC |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