



**Orders:** 877-616-CELL (2355)  
orders@cellsignal.com

**Support:** 877-678-TECH (8324)

**Web:** info@cellsignal.com  
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

#28435 Store at +4C

## FLT3 (BV10A4H2) Mouse mAb (Pacific Blue™ Conjugate)

**For Research Use Only. Not for Use in Diagnostic Procedures.**

|                                  |  |                                   |                                      |                               |                                |
|----------------------------------|--|-----------------------------------|--------------------------------------|-------------------------------|--------------------------------|
| <b>Applications:</b><br>FC-L     | <b>Reactivity:</b><br>H  | <b>Sensitivity:</b><br>Endogenous | <b>Source/Isotype:</b><br>Mouse IgG1 | <b>UniProt ID:</b><br>#P36888 | <b>Entrez-Gene Id:</b><br>2322 |
| <b>Product Usage Information</b> | <b>Application</b><br>Flow Cytometry (Live)  |                                   |                                      | <b>Dilution</b><br>1:50       |                                |
| <b>Storage</b>                   | Supplied in PBS (pH 7.2), less than 0.1% sodium azide and 2 mg/ml BSA. Store at 4°C. Do not aliquot the antibody. Protect from light. Do not freeze.   |                                   |                                      |                               |                                |
| <b>Specificity/Sensitivity</b>   | FLT3 (BV10A4H2) Mouse mAb (Pacific Blue™ Conjugate) recognizes endogenous levels of total FLT3 protein.  |                                   |                                      |                               |                                |
| <b>Source / Purification</b>     | BV10A4H2 clone is produced by immunizing animals with the leukemic cell line BV-173 and Antibody is purified from tissue culture supernatant via protein G chromatography.   |                                   |                                      |                               |                                |
| <b>Description</b>               | This Cell Signaling Technology antibody is conjugated to Pacific Blue™ fluorescent dye and tested in-house for direct flow cytometric analysis in human cells.   |                                   |                                      |                               |                                |
| <b>Background</b>                | FMS-related tyrosine kinase 3 (FLT3, also called FLK2) is a member of the Type III receptor tyrosine kinase family, which includes c-Kit, PDGFR, and M-CSF receptors. FLT3 is expressed on early hematopoietic progenitor cells and supports growth and differentiation within the hematopoietic system (1,2). FLT3 is activated after binding with its ligand FL, which results in a cascade of tyrosine autophosphorylation and tyrosine phosphorylation of downstream substrates (3). The p85 subunit of PI3 kinase, SHP2, GRB2, and Shc have all been reported to associate with FLT3 after FL stimulation (4-6). Tyr589/591 is located in the juxtamembrane region of FLT3 and may play an important role in regulation of FLT3 tyrosine kinase activity. Somatic mutations of FLT3 consisting of internal tandem duplications (ITDs) occur in 20% of patients with acute myeloid leukemia (7). |                                   |                                      |                               |                                |
| <b>Background References</b>     | <ol style="list-style-type: none"> <li>Shurin, M.R. et al. (1998) <i>Cytokine Growth Factor Rev</i> 9, 37-48.</li> <li>Naoe, T. et al. (2001) <i>Cancer Chemother Pharmacol</i> 48 Suppl 1, S27-30.</li> <li>Namikawa, R. et al. (1996) <i>Stem Cells</i> 14, 388-95.</li> <li>Beslu, N. et al. (1996) <i>J Biol Chem</i> 271, 20075-81.</li> <li>Zhang, S. and Broxmeyer, H.E. (2000) <i>Biochem Biophys Res Commun</i> 277, 195-9.</li> <li>Zhang, S. et al. (1999) <i>J Leukoc Biol</i> 65, 372-80.</li> <li>Mizuki, M. et al. (2000) <i>Blood</i> 96, 3907-14.</li> </ol>  |                                   |                                      |                               |                                |
| <b>Species Reactivity</b>        | Species reactivity is determined by testing in at least one approved application (e.g., western blot).   |                                   |                                      |                               |                                |
| <b>Applications Key</b>          | <b>FC-L:</b> Flow Cytometry (Live)   |                                   |                                      |                               |                                |
| <b>Cross-Reactivity Key</b>      | <b>H:</b> Human  |                                   |                                      |                               |                                |
| <b>Trademarks and Patents</b>    | <p>Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.</p> <p>Pacific Blue is a trademark of Life Technologies Corporation.</p> <p>All other trademarks are the property of their respective owners. Visit <a href="http://cellsignal.com/trademarks">cellsignal.com/trademarks</a> for more information.</p>  |                                   |                                      |                               |                                |
| <b>Limited Uses</b>              | <p>Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.</p> <p>Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any</p>  |                                   |                                      |                               |                                |

purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.

**Orders: 877-616-CELL (2355) • orders@cellsignal.com • Support: 877-678-TECH (8324) • info@cellsignal.com • Web: cellsignal.com**  
For Research Use Only. Not for Use in Diagnostic Procedures.