

**PE/Fire™ 700 anti-mouse CD38**

**Catalog # / Size:** 1113735 / 25 µg

**Clone:** 90

**Isotype:** Rat IgG2a, κ

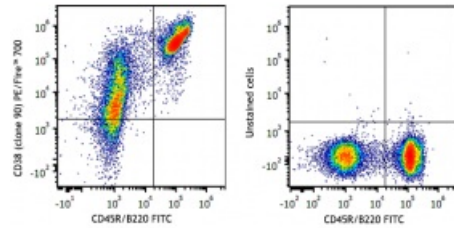
**Immunogen:** Mouse bone marrow pre-B cells

**Reactivity:** Mouse

**Preparation:** The antibody was purified by affinity chromatography and conjugated with PE/Fire™ 700 under optimal conditions.

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide

**Concentration:** 0.2 mg/mL



C57BL/6 mouse splenocytes were stained with anti-mouse CD45R/B220 FITC and anti-mouse CD38 (clone 90) PE/Fire™ 700 (left) or with anti-mouse CD45R/B220 FITC only (right).

**Applications:**

**Applications:** Flow Cytometry

**Recommended Usage:** Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is ≤ 0.125 µg per million cells in 100 µL volume. It is recommended that the reagent be titrated for optimal performance for each application.

\* PE/Fire™ 700 has a maximum excitation of 565 nm and a maximum emission of 695 nm.

**Application Notes:** Additional reported applications (for the relevant formats) include: immunohistochemistry<sup>1,2</sup> of acetone-fixed frozen sections, and induction of B cell proliferation<sup>1</sup>.

**Application References:** 1. Oliver AM, *et al.* 1997. *J. Immunol.* 158:1108.  
2. Howard M, *et al.* 1993. *Science* 262:1056.

**Description:** CD38 is a 42 kD glycoprotein, also known as T10. It is an ADP-ribosyl hydrolase, expressed on B cells, NK cells, a subset of T cells, brain, muscle, and kidney. In mouse, CD38 expression is downregulated on germinal center B cells and plasma cells, whereas this is not the case for humans. By functioning as both a cyclase and a hydrolase, CD38 mediates lymphocyte activation, as well as adhesion and metabolism of cADPR and NAADP. CD31 is the ligand of CD38.

**Antigen References:** 1. Barclay AN, *et al.* 1997. *The Leukocyte Antigen FactsBook* Academic Press.  
2. Shubinsky G, *et al.* 1997. *Immunity.* 7:315-24.  
3. Cesano A, *et al.* 1998. *J Immunol.* 160:1106-15.  
4. Cockayne DA, *et al.* 1998. *Blood.* 92:1324-33.