

**APC/Fire™ 750 anti-human CD38**

**Catalog # /** 2383130 / 100 tests  
**Size:** 2383125 / 25 tests

**Clone:** HB-7

**Isotype:** Mouse IgG1, κ

**Immunogen:** BJAB human B cell line.

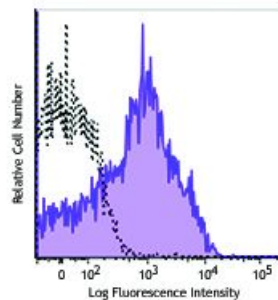
**Reactivity:** Human

**Preparation:** The antibody was purified by affinity chromatography and conjugated with APC/Fire™

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

**Workshop Number:** 750 under optimal conditions.

**Concentration:** Lot-specific



Human peripheral blood lymphocytes were stained with CD38 (clone HB-7) APC/Fire™ 750 (filled histogram) or mouse IgG1, κ APC/Fire™ 750 isotype control (open histogram).

**Applications:**

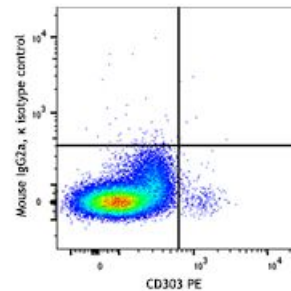
**Applications:** Flow Cytometry

**Recommended Usage:** Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood.

\* APC/Fire™ 750 has a maximum excitation of 650 nm and a maximum emission of 787 nm.

**Application Notes:** The epitope recognized by MI15 is found within the ectodomain of the CD138 core protein. It has been reported that MI15 blocks the binding of clone B-B4 but not clone DL-101 by flow cytometric analysis. Clones DL-101 and MI15 exhibit differential staining patterns on *in vitro* generated plasma cells and some CD138<sup>+</sup> cell lines.<sup>4</sup>

Additional reported applications for the relevant formats include: immunofluorescent staining<sup>1</sup>, Western blotting<sup>2</sup>, and immunohistochemical staining of formalin-fixed paraffin-embedded frozen tissue sections<sup>3</sup>.



Human peripheral blood granulocytes were stained with True-Stain Monocyte Blocker™ (Cat. No. 426103) and Siglec-9 (clone K8) APC/Fire™ 750 (filled histogram) or mouse IgG1, κ isotype control APC/Fire™ 750 (open histogram).

**Application**  
**References:**

1. Costes V, et al. 1999. *Hum. Pathol.* 30:1405. (IF)
  2. Gattei V, et al. 1999. *Br. J. Haematol.* 104:152. (WB)
  3. Bologna-Molina R, et al. 2008. *Oral Oncol.* 44:805. (IHC)
  4. Itoua MR, et al. 2014. *Biomed. Res. Int.* 2014:536482.
- 

**Description:** CD38 is a 45 kD type II transmembrane glycoprotein also known as T10. It is an ADP-ribosyl hydrolase expressed at variable levels on hematopoietic cells and in some non-hematopoietic tissues (such as brain, muscle, and kidney). In humans, it is expressed at high levels on plasma cells and activated T and B cells, natural killer (NK) lymphocytes, myeloblasts, and erythroblasts. By functioning as both a cyclase and a hydrolase, CD38 mediates lymphocyte activation, adhesion, and the metabolism of cADPR and NAADP. CD31 is the ligand of CD38.

**Antigen**  
**References:**

1. Ferrero E, et al. 1999. *J. Leukoc. Biol.* 65:151.
2. Lund F, et al. 1995. *Immunol. Today* 16:469.