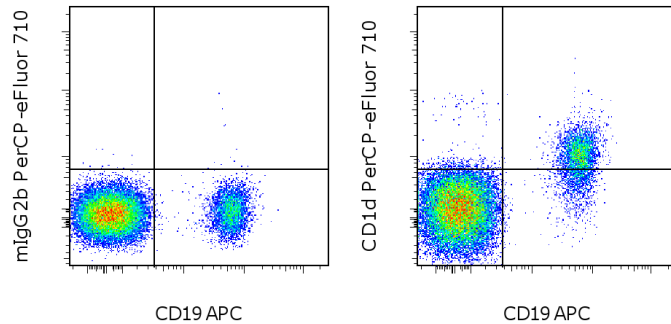


## Anti-Human CD1d PerCP-eFluor<sup>®</sup> 710

**Catalog Number:** 46-0016

**Also known as:** R3, R3G1

**RUO: For Research Use Only. Not for use in diagnostic procedures.**



Staining of normal human peripheral blood cells with Anti-Human CD19 APC (cat. 17-0199) and Mouse IgG2b K Isotype Control PerCP-eFluor<sup>®</sup> 710 (cat. 46-4732) (left) or Anti-Human CD1d PerCP-eFluor<sup>®</sup> 710 (right). Cells in the lymphocyte gate were used for analysis.

### Product Information

**Contents:** Anti-Human CD1d PerCP-eFluor<sup>®</sup> 710

**REF** **Catalog Number:** 46-0016

**Clone:** 51.1

**Concentration:** 5  $\mu$ L (0.125  $\mu$ g)/test

**Host/Isotype:** Mouse IgG2b, kappa



**Temperature Limitation:** Store at 2-8°C. Do not freeze. Light-sensitive material.



**Batch Code:** Refer to vial



**Use By:** Refer to vial



**Contains sodium azide**

### Description

The monoclonal antibody 51.1 reacts with human CD1d, a member of the CD1 family with similarity to the non-polymorphic MHC Class I-like molecules. CD1d is a highly conserved single transmembrane receptor of the Immunoglobulin Superfamily. CD1d can associate with beta-microglobulin another feature showing similarity to MHC class I molecules, but can also exist as a nonglycosylated protein not in association with beta microglobulin. This suggests different control mechanisms for presenting glycolipid containing molecules to CD1d reactive NKT cells. Expression of CD1d is found on B cells of the periphery, in resting monocytes and cortical thymocytes. On intestinal epithelial cells (IEC) expression is polarized. Expression can also be found at low levels intracellularly in hepatocytes. In HCV (hepatitis C virus) livers, CD1d is highly expressed compared to normal controls.

### Applications Reported

This 51.1 antibody has been reported for use in flow cytometric analysis.

### Applications Tested

This 51.1 antibody has been pre-titrated and tested by flow cytometric analysis of normal human peripheral blood cells. This can be used at 5  $\mu$ L (0.125  $\mu$ g) per test. A test is defined as the amount ( $\mu$ g) of antibody that will stain a cell sample in a final volume of 100  $\mu$ L. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells/test.

**PerCP-eFluor<sup>®</sup> 710 can be used in place of PE-Cy5, PE-Cy5.5 or PerCP-Cy5.5. PerCP-eFluor<sup>®</sup> 710 emits at 710 nm and is excited with the blue laser (488 nm). Please make sure that your instrument is capable of detecting this fluorochrome. For a filter configuration, we recommend using the 685 LP dichroic mirror and 710/40 band pass filter, however the 695/40 band pass filter is an acceptable alternative.**

**Fixation: Samples can be stored in IC Fixation Buffer (cat. 00-8222) (100  $\mu$ L cell sample + 100  $\mu$ L IC Fixation Buffer) or 1-step Fix/Lyse Solution (cat. 00-5333) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency/compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.**

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### **References**

Durante-Mangoni E, Wang R, Shaulov A, He Q, Nasser I, Afdhal N, Koziel MJ, Exley MA. Hepatic CD1d expression in hepatitis C virus infection and recognition by resident proinflammatory CD1d-reactive T cells. *J Immunol.* 2004 Aug 1;173(3):2159-66. (51.1 IHf)

Exley M, Garcia J, Wilson SB, Spada F, Gerdes D, Tahir SM, Patton KT, Blumberg RS, Porcelli S, Chott A, Balk SP. CD1d structure and regulation on human thymocytes, peripheral blood T cells, B cells and monocytes. *Immunology.* 2000 May;100(1):37-47.

Somnay-Wadgaonkar K, Nusrat A, Kim HS, Canchis WP, Balk SP, Colgan SP, Blumberg RS. Immunolocalization of CD1d in human intestinal epithelial cells and identification of a beta2-microglobulin-associated form. *Int Immunol.* 1999 Mar;11(3):383-92.

Blumberg RS, Terhorst C, Bleicher P, McDermott FV, Allan CH, Landau SB, Trier JS, Balk SP. Expression of a nonpolymorphic MHC class I-like molecule, CD1D, by human intestinal epithelial cells. *J Immunol.* 1991 Oct 15;147(8):2518-24.

### **Related Products**

17-0199 Anti-Human CD19 APC (HIB19)

46-4732 Mouse IgG2b K Isotype Control PerCP-eFluor<sup>®</sup> 710

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