

# Technical Data Sheet

## BV711 Rat Anti-Mouse CD2

### Product Information

Material Number:	740655
Size:	50 µg
Clone:	RM2-5
Alternative Name:	LFA-2; LFA-3 receptor; Ly37; Ly-37; Lymphocyte antigen 37; T11
Reactivity:	Mouse (Tested in Development)
Isotype:	Rat SD, also known as Sprague-Dawley (outbred) IgG2b, λ
Immunogen:	Mouse BALB/c Thymocytes
Application:	Flow cytometry (Qualified)
Concentration:	0.2 mg/ml
Entrez Gene ID:	12481
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.
Regulatory Status:	RUO

### Description

The RM2-5 monoclonal antibody specifically binds to the immunoglobulin superfamily adhesion molecule, CD2 (LFA-2). CD2 is a type I transmembrane glycoprotein that serves as the the major receptor for CD48 in the mouse. CD2 is involved in T-cell activation, immunoregulation, and thymocyte maturation. In the mouse, CD2 is expressed on peripheral T lymphocytes, B lymphocytes, and NK cells, and a subpopulation of intraepithelial T lymphocytes. CD2 is expressed throughout mouse thymic ontogeny, except for distinct subsets of the CD4-CD8- early thymocytes. In the mouse bone marrow, CD2 is expressed on B220+ sIg+ CD43- pre-B cells, but not on CD43+ pro-B cells. The RM2-5 antibody is one of a set of five anti-mouse CD2 monoclonal antibodies that were classified into two groups according to their mutual competition in binding to cell surface CD2 and which block CD2-mediated cell-cell adhesion.

The antibody was conjugated to BD Horizon™ BV711 which is part of the BD Horizon Brilliant™ Violet family of dyes. This dye is a tandem fluorochrome of BD Horizon BV421 with an Ex Max of 405-nm and an acceptor dye with an Em Max at 711-nm. BD Horizon BV711 can be excited by the violet laser and detected in a filter used to detect Cy™5.5 / Alexa Fluor® 700-like dyes (eg, 712/20-nm filter). Due to the excitation and emission characteristics of the acceptor dye, there may be moderate spillover into the Alexa Fluor® 700 and PerCP-Cy5.5 detectors. However, the spillover can be corrected through compensation as with any other dye combination.

### Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze. The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. The antibody was conjugated with BD Horizon BV711 under optimal conditions that minimize unconjugated dye and antibody.

### Recommended Assay Procedure

For optimal and reproducible results, BD Horizon Brilliant Stain Buffer should be used anytime two or more BD Horizon Brilliant dyes (including BD OptiBuild Brilliant reagents) are used in the same experiment. Fluorescent dye interactions may cause staining artifacts which may affect data interpretation. The BD Horizon Brilliant Stain Buffer was designed to minimize these interactions. More information can be found in the Technical Data Sheet of the BD Horizon Brilliant Stain Buffer (Cat. No. 563794).

### Suggested Companion Products

Catalog Number	Name	Size	Clone
563045	BV711 Rat IgG2b, κ Isotype Control	50 µg	R35-38
554656	Stain Buffer (FBS)	500 mL	
554657	Stain Buffer (BSA)	500 mL	
563794	Brilliant Stain Buffer	100 Tests	
555899	Lysing Buffer	100 mL	

## Product Notices

1. This antibody was developed for use in flow cytometry.
2. The production process underwent stringent testing and validation to assure that it generates a high-quality conjugate with consistent performance and specific binding activity. However, verification testing has not been performed on all conjugate lots.
3. Researchers should determine the optimal concentration of this reagent for their individual applications.
4. An isotype control should be used at the same concentration as the antibody of interest.
5. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
6. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at [wwwbdbiosciences.com/colors](http://wwwbdbiosciences.com/colors).
7. Please refer to [wwwbdbiosciences.com/us/s/resources](http://wwwbdbiosciences.com/us/s/resources) for technical protocols.
8. BD Horizon Brilliant Stain Buffer is covered by one or more of the following US patents: 8,110,673; 8,158,444; 8,575,303; 8,354,239.
9. BD Horizon Brilliant Violet 711 is covered by one or more of the following US patents: 8,110,673; 8,158,444; 8,227,187; 8,455,613; 8,575,303; 8,354,239.
10. Cy is a trademark of Amersham Biosciences Limited.
11. Alexa Fluor® is a registered trademark of Life Technologies Corporation.

## References

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United States  
877.232.8995

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Europe  
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