

Technical Data Sheet

BV786 Rat Anti-Mouse CD355 (CRTAM)

Product Information

Material Number:	749760
Size:	50 µg
Clone:	11-5
Alternative Name:	class I-restricted T cell-associated molecule; crtam; cytotoxic and regulatory T-cell molecule
Reactivity:	Mouse (Tested in Development)
Isotype:	Rat WI, also known as Wistar (outbred) IgG2a, κ
Immunogen:	Mouse CRTAM extracellular sequence Recombinant Protein
Application:	Flow cytometry (Qualified)
Concentration:	0.2 mg/ml
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.
Regulatory Status:	RUO

Description

The 11-5 monoclonal antibody specifically recognizes MHC class I-restricted T cell-associated molecule (CRTAM) that is also known as CD355 or Cytotoxic and regulatory T-cell molecule. CD355 (CRTAM) is encoded by *Crtam* which belongs to the Nectin family of cell adhesion molecules within the immunoglobulin superfamily. This type I transmembrane glycoprotein contains a V-type Ig domain, followed by a C-type Ig domain, a transmembrane region, and an intracellular region that contains a PDZ-binding motif at the C terminus. CD355 (CRTAM) is transiently expressed as a homodimer on activated NK cells, NKT cells, γδ T cells, CD8+ T cells, or CD4+ T cells. Through its V-type Ig domain, CRTAM (CD355) binds to Nectin-like molecule 2 (Nectl-2) and plays important roles in adhesive interactions between different cell types and in cellular migration.

The antibody was conjugated to BD Horizon™ BV786 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 786-nm. BD Horizon BV786 can be excited by the violet laser and detected in a filter used to detect Cy™7-like dyes (eg, 780/60-nm filter).

Preparation and Storage Section

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 BV786 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
554656	Stain Buffer (FBS) RUO	500 mL	
554657	Stain Buffer (BSA) RUO	500 mL	
563794	Brilliant Stain Buffer RUO	100 Tests	
555899	Lysing Buffer RUO	100 mL	
563335	BV786 Rat IgG2a, κ Isotype Control RUO	50 µg	
553141	Purified Rat Anti-Mouse CD16/CD32 (Mouse BD Fc Block™) 2.4G2 RUO	0.1 mg	
565804	Red Nucleic Acid Stain RUO	0.5 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 www.bdbiosciences.com/colors.
7. Please refer to www.bdbiosciences.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 786 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 GE Healthcare.

References

- Arase N, Takeuchi A, Unno M, et al. Heterotypic interaction of CRTAM with Nectin2 induces cell adhesion on activated NK cells and CD8+ T cells.. *Int Immunol*. 2005; 17(9):1227-37.
- Fuchs A, Colonna M. The role of NK cell recognition of nectin and nectin-like proteins in tumor immunosurveillance. *Semin Cancer Biol*. 2006; 16(5):359-366.
- Kennedy J, Vicari AP, Saylor V, et al. A molecular analysis of NKT cells: identification of a class-I restricted T cell-associated molecule (CRTAM).. *J Leukoc Biol*. 2000; 67(5):725-34.
- Takeuchi A, Badr Mel S, Miyauchi K, et al. CRTAM determines the CD4+ cytotoxic T lymphocyte lineage. *J Exp Med*. 2016; 213(1):123-38.
- Takeuchi A, Itoh Y, Takumi A, et al. CRTAM confers late-stage activation of CD8+ T cells to regulate retention within lymph node. *J Immunol*. 2009; 183(7):4220-4228.

BD Biosciences

bdbiosciences.com

United States
877.232.8995

Canada
888.268.5430

Europe
32.53.720.550

Japan
0120.8555.90

Asia Pacific
65.6861.0633

Latin America/Caribbean
0800.771.7157

For country contact information, visit bdbiosciences.com/contact

Conditions: The information disclosed herein is not to be construed as a recommendation to use the above product in violation of any patents. BD Biosciences will not be held responsible for a patent infringement or other violations that may occur with the use of our products. Purchase does not include or carry any right to resell or transfer this product either as a stand-alone product or as a component of another product. Any use of this product other than the permitted use without the express written authorization of Becton Dickinson and Company is strictly prohibited. For Research Use Only. Not for use in diagnostic or therapeutic procedures. Not for resale.

©2020 BD. All rights reserved. Unless otherwise noted, BD, the BD Logo and all other trademarks are the property of Becton, Dickinson and Company or its affiliates.

