

# Technical Data Sheet

## BV786 Rat Anti-Mouse CD84

### Product Information

Material Number:	756087
Size:	50 µg
Clone:	mCD84.7.rMAb
Alternative Name:	Cd84; SLAMF5; SLAM family member 5; signaling lymphocytic activation molecule 5
Reactivity:	Tested in Development:Mouse
Isotype:	Rat IgG1
Immunogen:	Recombinant Mouse CD84 Extracellular Domain 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 mCD84.7.rMAb is a recombinant monoclonal antibody that was derived from mCD84.7 hybridoma cells. This antibody specifically recognizes CD84 which is also known as Signaling lymphocytic activation molecule 5 (SLAM family member 5 or Slamf5). CD84 is a single-pass type I transmembrane glycoprotein that is encoded by Cd84 (CD84 antigen) which belongs to the SLAM family within the CD2-subset of the immunoglobulin superfamily (IgSF) of cell surface receptors. CD84 is comprised of an extracellular region with one N-terminal Ig-like V-type (IgV) domain followed by one Ig-like C2-type (IgC2) domain. Its cytoplasmic tail contains two immunoreceptor tyrosine-based switch motifs (ITSMs) and serves as a docking site for activating adaptor molecules, SLAM-associated protein (SAP) or EWS-activated transcript 2 (EAT-2), or inhibitory SH2-binding phosphatases. CD84 is variably expressed on B cells, T cells, NK cells, monocytes, macrophages, dendritic cells, granulocytes, mast cells, hematopoietic progenitor cells, and platelets. CD84 is a homotypic adhesion molecule that can function as a coreceptor in the regulation of innate and adaptive immune responses including the enhancement of T cell proliferation and cytokine production.

### 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 to the dye under optimum conditions that minimize unconjugated dye and antibody.

### Recommended Assay Procedure

BD® CompBeads can be used as surrogates to assess fluorescence spillover (compensation). When fluorochrome conjugated antibodies are bound to BD® CompBeads, they have spectral properties very similar to cells. However, for some fluorochromes there can be small differences in spectral emissions compared to cells, resulting in spillover values that differ when compared to biological controls. It is strongly recommended that when using a reagent for the first time, users compare the spillover on cells and BD® CompBeads to ensure that BD® CompBeads are appropriate for your specific cellular application.

For optimal and reproducible results, BD Horizon Brilliant Stain Buffer should be used anytime BD Horizon Brilliant dyes are used in a multicolor flow cytometry panel. Fluorescent dye interactions may cause staining artifacts which may affect data interpretation. The BD Horizon Brilliant Stain Buffer was designed to minimize these interactions. When BD Horizon Brilliant Stain Buffer is used in the multicolor panel, it should also be used in the corresponding compensation controls for all dyes to achieve the most accurate compensation. For the most accurate compensation, compensation controls created with either cells or beads should be exposed to BD Horizon Brilliant Stain Buffer for the same length of time as the corresponding multicolor panel. More information can be found in the Technical Data Sheet of the BD Horizon Brilliant Stain Buffer (Cat. No. 563794/566349) or the BD Horizon Brilliant Stain Buffer Plus (Cat. No. 566385).

### Suggested Companion Products

Catalog Number	Name	Size	Clone
566349	Brilliant Stain Buffer	100 Tests	

554656	Stain Buffer (FBS)	500 mL	
554657	Stain Buffer (BSA)	500 mL	
566385	Brilliant Stain Buffer Plus	1000 Tests	
555899	Lysing Buffer	100 mL	
553142	Purified Rat Anti-Mouse CD16/CD32 (Mouse BD Fc Block™)	0.1 mg	2.4G2
563847	BV786 Rat IgG1, κ Isotype Control	50 µg	R3-34

## Product Notices

1. 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.
2. Researchers should determine the optimal concentration of this reagent for their individual applications.
3. An isotype control should be used at the same concentration as the antibody of interest.
4. 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.
5. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at [www.bdbiosciences.com/colors](http://www.bdbiosciences.com/colors).
6. Please refer to [www.bdbiosciences.com/us/s/resources](http://www.bdbiosciences.com/us/s/resources) for technical protocols.
7. 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.
8. Please refer to <http://regdocs.bd.com> to access safety data sheets (SDS).
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 Global Life Sciences Solutions Germany GmbH or an affiliate doing business as Cytiva.

## References

Sintes J, Romero X, de Salort J, Terhorst C, Engel P. Mouse CD84 is a pan-leukocyte cell-surface molecule that modulates LPS-induced cytokine secretion by macrophages. *J Leukoc Biol.* 2010; 88(4):687-97. (Immunogen: Flow cytometry).

Carbone A, Gloghini A, Gattei V, et al. Reed-Sternberg cells of classical Hodgkin's disease react with the plasma cell-specific monoclonal antibody B-B4 and express human syndecan-1. *Blood.* 1997; 89:3787-3794. (Clone-specific: Flow cytometry).

Fleischer J, Soeth E, Reiling N, Grage-Griebenow E, Flad HD, Ernst M. Differential expression and function of CD80 (B7-1) and CD86 (B7-2) on human peripheral blood monocytes. *Immunology.* 1996; 89:592-598. (Clone-specific: Flow cytometry).

Ardman B, Sikorski MA, Staunton DE. CD43 interferes with T-lymphocyte adhesion. *Proc Natl Acad Sci U S A.* 1992; 89:5001-5005. (Clone-specific: Flow cytometry).

de la Fuente MA, Pizcueta P, Nadal M, Bosch J, Engel P. CD84 leukocyte antigen is a new member of the Ig superfamily. *Blood.* 1997; 90(6):2398-2405. (Biology).

Vieira, P, et al. Isolation and expression of human cytokine synthesis inhibitory factor cDNA clones: homology to Epstein-Barr virus open reading frame BCRFI. *Proc Natl Acad Sci USA.* 1991; 88:172-176. (Biology).

Borowitz MJ, Shuster J, Carroll AJ, et al. Prognostic significance of fluorescence intensity of surface marker expression in childhood B-precursor acute lymphoblastic leukemia. A Pediatric Oncology Group Study. *Blood.* 1997; 89:3960-3966. (Biology).

Martin M, Romero X, de la Fuente MA, et al. CD84 functions as a homophilic adhesion molecule and enhances IFN-gamma secretion: adhesion is mediated by Ig-like domain 1. *J Immunol.* 2001; 167(7):3668-3676. (Biology).

## BD Biosciences

[bdbiosciences.com](http://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](http://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

©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.