

## Technical Data Sheet

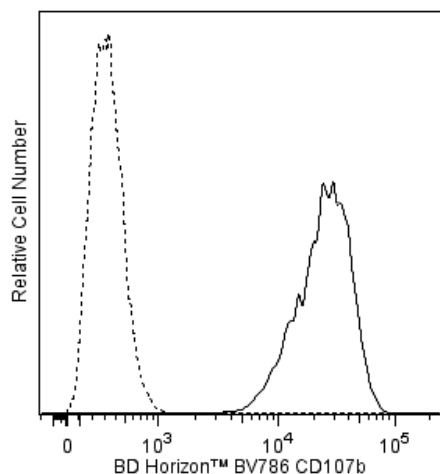
**BV786 Mouse Anti-Human CD107b****Product Information**

<b>Material Number:</b>	<b>565304</b>
<b>Alternate Name:</b>	LAMP-2; LAMP2; LAMPB; LGP110
<b>Size:</b>	50 Tests
<b>Vol. per Test:</b>	5 µl
<b>Clone:</b>	H4B4
<b>Immunogen:</b>	Human Adult Adherent Peripheral Blood Cells
<b>Isotype:</b>	Mouse IgG1, κ
<b>Reactivity:</b>	QC Testing: Human
<b>Workshop:</b>	V P007
<b>Storage Buffer:</b>	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

**Description**

The H4B4 monoclonal antibody specifically binds to CD107b. CD107b is a heavily glycosylated, ~120 kDa type I transmembrane protein that is also known as lysosomal-associated membrane protein 2 (LAMP-2/LAMP2), LAMPB, or LGP110. CD107b is expressed in the lysosomal and endosomal membranes of most cell types where it may play a role in maintaining membrane integrity. CD107b is also expressed on the surface of activated platelets and lymphocytes, including T lymphocytes, e.g., degranulating CD8+ cytotoxic T cells. CD107b serves as a ligand for selectins, including E-selectin, and mediates cellular adhesion. CD107a/ LAMP-1 and CD107b/ LAMP-2 are carriers for poly-N-acetyllactosamines, and display the sialyl Le<sup>x</sup> antigen. CD107b is likewise expressed on some tumor cells and cell lines, including U937 and KG1a, and may facilitate tumor metastases.

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).



**Flow cytometric analysis of CD107b expression by Jurkat cells.** Cells from the human Jurkat (Acute T cell leukemia, ATCC TIB-152) cell line were fixed with BD Cytofix™ Fixation Buffer (Cat. No. 554655), permeabilized with BD Perm/Wash™ Buffer (Cat. No. 554723), and subsequently stained with either BD Horizon™ BV786 Mouse IgG1, κ Isotype Control (Cat. No. 563330; dashed line histogram) or BD Horizon BV786 Mouse Anti-Human CD107b antibody (Cat. No. 565304; solid line histogram). The fluorescence histogram showing CD107b expression (or Ig Isotype control staining) was derived from events with the forward and side light-scatter characteristics of intact Jurkat cells. Flow cytometric analysis was performed using a BD LSR™ Cell Analyzer System.

**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™ BV786 under optimum conditions, and unconjugated antibody and free BD Horizon™ BV786 were removed.

**Application Notes****Application**

Intracellular staining (flow cytometry)	Routinely Tested
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565304 Rev. 2



### Recommended Assay Procedure:

For optimal and reproducible results, BD Horizon Brilliant Stain Buffer should be used anytime two or more BD Horizon Brilliant dyes 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. 563794/566349).

### Suggested Companion Products

Catalog Number	Name	Size	Clone
554656	Stain Buffer (FBS)	500 mL	(none)
554657	Stain Buffer (BSA)	500 mL	(none)
563330	BV786 Mouse IgG1, k Isotype Control	50 µg	X40
563794	Brilliant Stain Buffer	100 Tests	(none)
554655	Fixation Buffer	100 mL	(none)
554723	Perm/Wash Buffer	100 mL	(none)
566349	Brilliant Stain Buffer	1000 Tests	(none)

### Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use  $1 \times 10^6$  cells in a 100-µl experimental sample (a test).
2. An isotype control should be used at the same concentration as the antibody of interest.
3. 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.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
5. For fluorescence 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. Cy is a trademark of GE Healthcare.
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. 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.
9. Please refer to [www.bdbiosciences.com/pharmingen/protocols](http://www.bdbiosciences.com/pharmingen/protocols) for technical protocols.

### References

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Mane SM, Marzella L, Bainton DF, et al. Purification and characterization of human lysosomal membrane glycoproteins. *Arch Biochem Biophys*. 1989; 268(1):360-378. (Immunogen: Electron microscopy, Flow cytometry, Immunoaffinity chromatography, Immunohistochemistry, Immunoprecipitation)

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