

# Technical Data Sheet

## BV711 Mouse Anti-Human CD13

### Product Information

Material Number:	745496
Size:	50 µg
Clone:	L138 (also known as Leu-M7)
Alternative Name:	ANPEP; APN; Aminopeptidase N; Alanyl aminopeptidase; LAP1; PEPN
Reactivity:	Human (Tested in Development)
Isotype:	Mouse BALB/c X C57BL/6 IgG1, κ
Immunogen:	KG-1a Cell Line
Application:	Flow cytometry (Qualified)
Concentration:	0.2 mg/ml
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.
Regulatory Status:	RUO

### Description

The L138 monoclonal antibody (also known as Leu-M7) specifically binds to a glycosylated 150 kDa type II integral membrane zinc-metalloprotease. The CD13 antigen is also known as aminopeptidase N, APN, ANPEP, and gp150. The CD13 antigen is expressed on granulocytes, monocytes, mast cells, and granulocyte/macrophage progenitor cells (CFU-GM), but not on lymphocytes, platelets, or erythrocytes. It is expressed on most acute myeloid leukemia (AML) cells and some chronic myeloid leukemia (CML) cells. The CD13 antigen is also expressed on epithelial cells of the kidney, small intestine, and respiratory tract, as well as in synaptic membranes in the central nervous system (CNS). The CD13 antigen is involved in the metabolism of many regulatory peptides. Clustering of the CD13 antigen by various forms of ligation promotes the adhesion between monocytes and endothelial cells. The CD13 antigen is the receptor for human coronavirus 229E, the causative agent for some cases of upper respiratory infection.

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 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 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
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	
349202	Lysing Solution 10X Concentrate IVD	100 NA	
564219	Human BD Fc Block™ RUO	50 mg	
563044	BV711 Mouse IgG1, κ Isotype Control RUO	50 µg	

## 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](http://www.bdbiosciences.com/colors).
7. Please refer to [www.bdbiosciences.com/us/s/resources](http://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 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 GE Healthcare.
11. Alexa Fluor® is a registered trademark of Life Technologies Corporation.

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