

Technical Data Sheet

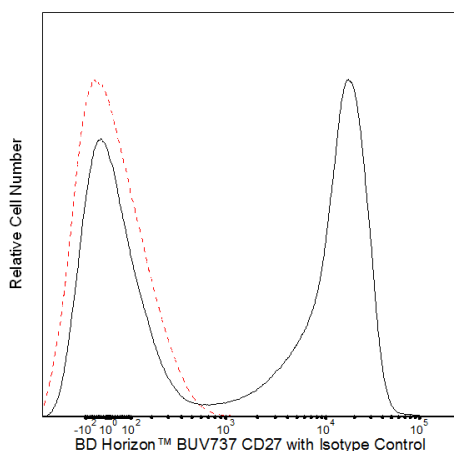
BUV737 Mouse Anti-Human CD27**Product Information**

Material Number:	564302
Alternate Name:	TNFRSF7; Tumor necrosis factor receptor superfamily, member 7; Tp55; S152
Size:	25 Tests
Vol. per Test:	5 µl
Clone:	L128
Immunogen:	Human Activated Peripheral Blood Cells
Isotype:	Mouse (BALB/c) IgG1
Reactivity:	QC Testing: Human
Workshop:	VI T6T037
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The L128 monoclonal antibody specifically binds to human CD27. CD27 is a 55-kDa disulfide-linked dimer that is a member of the nerve growth factor (NGF) super family. This family also includes CD40, rat OX40, tumor necrosis factor (TNF) receptors and CD95 (Fas). With its ligand CD70, CD27 acts in a co-stimulatory fashion on T lymphocytes. Present on most peripheral blood T lymphocytes and medullary thymocytes, the CD27 antigen is upregulated upon activation with the release of a soluble form, 28 to 32 kDa. It is also detected on a subpopulation of approximately 33% of circulating B lymphocytes. Following exposure to antigens, CD45RA+ T lymphocytes respond by upregulating the CD27 antigen. After maximal stimulation, the CD27 antigen cannot be re-expressed on long-term cultures or on CD45RA-CD27+ T lymphocytes. The CD4+CD27- population is contained within the memory CD45RO+ subset that proliferates after exposure to allergens. Two subpopulations of B lymphocytes bearing the CD27 antigen secrete IgM (δ+) and IgG (δ-).

The antibody was conjugated to BD Horizon BUV737 which is part of the BD Horizon Brilliant™ Ultraviolet family of dyes. This dye is a tandem fluorochrome with an Ex Max near 350 nm and an Em Max near 737 nm. BD Horizon Brilliant BUV737 can be excited by the ultraviolet laser (355 nm) and detected with a 740/35 nm filter. Due to the excitation of the acceptor dye by the red laser line, there may be significant spillover into red laser detectors with filters in the 700-720 nm range.



Flow cytometric analysis of CD27 expression on human peripheral blood lymphocytes. Human whole blood was stained with either BD Horizon™ BUV737 Mouse Anti-Human CD27 antibody (Cat. No. 564301/564302; solid line histogram) or BD Horizon BUV737 Mouse IgG1, κ Isotype Control (Cat. No. 564299; dashed line histogram). Erythrocytes were lysed with BD FACS Lysing Solution (Cat. No. 349202). The fluorescence histograms were derived from events with the forward and side light-scatter characteristics of intact lymphocytes. Flow cytometry was performed using a BD™ LSR II Flow Cytometry 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 BUV737 under optimum conditions, and unconjugated antibody and free BD Horizon BUV737 were removed.

Application Notes**Application**

Flow cytometry

Routinely Tested

BD Biosciences

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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 CompBead 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 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) or the BD Horizon Brilliant Stain Buffer Plus (Cat. No. 566385).

Note: When using high concentrations of antibody, background binding of this dye to erythroid cell subsets (mature erythrocytes and precursors) has been observed. For researchers studying these cell populations, or in cases where light scatter gating does not adequately exclude these cells from the analysis, this background may be an important factor to consider when selecting reagents for panel(s).

Suggested Companion Products

Catalog Number	Name	Size	Clone
554656	Stain Buffer (FBS)	500 mL	(none)
554657	Stain Buffer (BSA)	500 mL	(none)
564299	BUV737 Mouse IgG1, κ Isotype Control	50 µg	X40
564301	BUV737 Mouse Anti-Human CD27	100 Tests	L128
349202	BD FACS™ Lysing Solution	100 mL	(none)
555899	Lysing Buffer	100 mL	(none)
563794	Brilliant Stain Buffer	100 Tests	(none)
566349	Brilliant Stain Buffer	1000 Tests	(none)
566385	Brilliant Stain Buffer Plus	1000 Tests	(none)

Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1×10^6 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. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
5. 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.
6. BD Horizon Brilliant Ultraviolet 737 is covered by one or more of the following US patents: 8,110,673; 8,158,444; 8,227,187; 8,575,303; 8,354,239.
7. Please refer to <http://regdocs.bd.com> to access safety data sheets (SDS).
8. Please refer to www.bdbiosciences.com/pharming/en/protocols for technical protocols.

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