

Technical Data Sheet

BUV737 Rat Anti-Mouse CD43 (to be replaced with 612840)**Product Information**

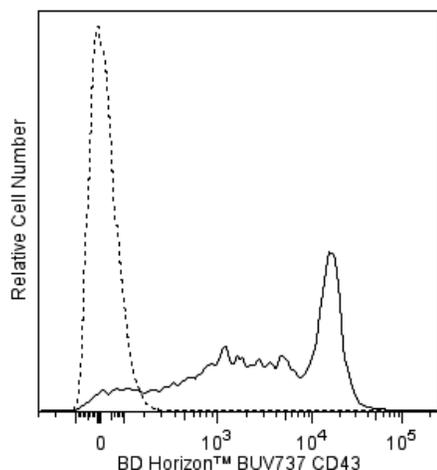
Material Number:	564398
Alternate Name:	Spn; Sialophorin; Leukosialin; Ly-48; Ly48; Galgp; LEUK
Size:	50 µg
Concentration:	0.2 mg/ml
Clone:	S7
Immunogen:	Mouse Plasmacytoma MOPC-315
Isotype:	Rat (DA x LOU) IgG2a, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The S7 monoclonal antibody specifically binds to the 115 kDa glycosylated form of CD43 (Ly-48, Leukosialin). CD43 is expressed on IL-7-responsive pro-B cells, plasma cells, peritoneal and splenic CD5+ B cells (B-1 cells), granulocytes, monocytes, macrophages, platelets, natural killer cells, thymocytes, peripheral T cytotoxic/suppressor cells, and most T helper cells, but not resting conventional peripheral B cells. CD43 expression has also been detected on pluripotent hematopoietic stem cells and myeloid, lymphoid, and NK-cell progenitors in the bone marrow. Studies of CD43-deficient mice indicate that CD43 participates in the negative regulation of T-cell activation and adhesion.

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.

This product will be discontinued in July 2019. 612840 is the reformulated replacement for this catalog number and it is available to be purchased. Visit bdbiosciences.com/newbuy for more information.



Flow cytometric analysis of CD43 expression on mouse bone marrow cells. Mouse bone marrow cells were preincubated with Purified Rat Anti-Mouse CD16/CD32 antibody (Mouse BD Fc Block™) (Cat. No. 553141/553142). The cells were then stained with either BD Horizon™ BUV737 Rat IgG2a, κ Isotype Control (Cat. No. 564294; dashed line histogram) or BD Horizon BUV737 Rat Anti-Mouse CD43 antibody (Cat. No. 564398; solid line histogram). The fluorescence histogram showing CD43 expression (or Ig isotype control staining) was derived from gated events with the forward and side light-scatter characteristics of viable bone marrow cells. Flow cytometric analysis was performed using a BD™ LSR II Flow Cytometer 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

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

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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)
564294	BUV737 Rat IgG2a, κ Isotype Control (to be replaced with 612760)	50 μ g	R35-95
563794	Brilliant Stain Buffer	100 Tests	(none)
553141	Purified Rat Anti-Mouse CD16/CD32 (Mouse BD Fc Block™)	0.1 mg	2.4G2
553142	Purified Rat Anti-Mouse CD16/CD32 (Mouse BD Fc Block™)	0.5 mg	2.4G2
566385	Brilliant Stain Buffer Plus	1000 Tests	(none)
566349	Brilliant Stain Buffer	1000 Tests	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
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 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.
6. 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.
7. Please refer to <http://regdocs.bd.com> to access safety data sheets (SDS).
8. Please refer to www.bdbiosciences.com/pharming/protocols for technical protocols.

References

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