Technical Data Sheet

BUV737 Streptavidin

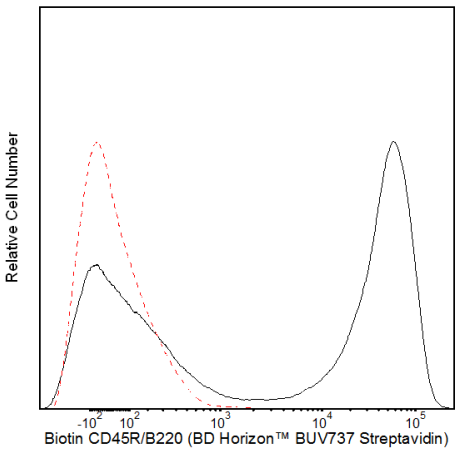
Product Information

Material Number:	**564293**
Size:	0.1 mg
Concentration:	0.1 mg/ml
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

Streptavidin is a non-glycosylated protein that is prepared chromatographically from the bacterium *Streptomyces avidinii*. Streptavidin homotetramers have a particularly high, non-covalent binding affinity for biotin. When conjugated with fluorochromes, streptavidin has been widely used with biotin-conjugated antibodies and other biotinylated specific-binding molecules (eg, recombinant proteins and lectins) to stain cells and tissues for subsequent multiparameter analysis by flow cytometry, fluorescence microscopy and imaging. Likewise, when conjugated with an enzyme (eg, Horseradish Peroxidase or Alkaline Phosphatase) and coupled with a colorimetric or luminescent substrate development system, streptavidin has found widespread use along with biotinylated antibodies in a number of applications including Western blot, ELISA, ELISPOT, immunocytochemistry and immunohistochemistry.

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 CD45R/B220 expression on mouse splenocytes. *Mouse splenic leucocytes were either not labeled (dashed line histogram) or were labeled (solid line histogram) with Biotin Rat Anti-Mouse CD45R/B220 antibody (Cat. No. 553085/553086). The cells were then washed and stained with BD Horizon™ BUV737 Streptavidin (Cat. No. 564293). Flow cytometric histograms were derived from gated events with the forward and side light-scatter characteristics of viable splenic leucocytes. 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.
Streptavidin was conjugated with dye under optimum conditions, and unconjugated Streptavidin and free dye were removed

Application Notes

Application

Flow cytometry	Routinely Tested

Recommended Assay Procedure:

BD Horizon™ BUV737 Streptavidin is a useful second-step reagent for the indirect immunofluorescent staining of cells in combination with biotinylated primary antibodies for flow cytometric analysis.

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.

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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)
553085	Biotin Rat Anti-Mouse CD45R/B220	0.1 mg	RA3-6B2
553086	Biotin Rat Anti-Mouse CD45R/B220	0.5 mg	RA3-6B2
555899	Lysing Buffer	100 mL	(none)
566349	Brilliant Stain Buffer	1000 Tests	(none)
566385	Brilliant Stain Buffer Plus	1000 Tests	(none)
563794	Brilliant Stain Buffer	100 Tests	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. 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.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. Alexa Fluor® is a registered trademark of Molecular Probes, Inc., Eugene, OR.
5. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
6. Please refer to http://regdocs.bd.com to access safety data sheets (SDS).
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 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.
9. Please refer to www.bdbiosciences.com/us/s/resources for technical protocols.

References

Diamandis EP, Christopoulos TK. The biotin-(strept)avidin system: principles and applications in biotechnology. *Clin Chem.* 1991; 37(5):625-636. (Biology)
Shapiro HM. *Practical flow cytometry, 4th ed.*. Hoboken, N.J.: Wiley-Liss; 2003:1-681. (Biology)