Technical Data Sheet

BV650 Streptavidin

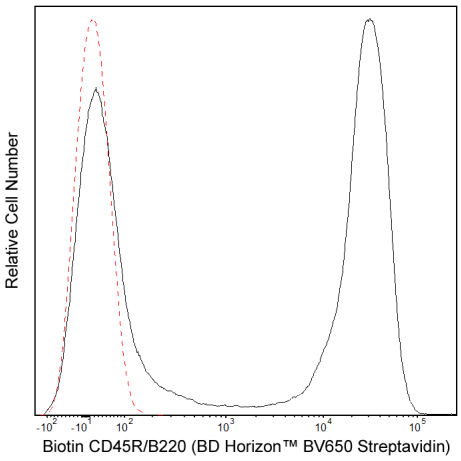
Product Information

Material Number:	**563855**
Size:	100 µg
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.

Streptavidin was conjugated to BD Horizon BV650 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 650-nm. BD Horizon BV650 can be excited by the violet laser and detected in a filter used to detect APC-like dyes (eg, 660/20-nm filter). Due to the excitation and emission characteristics of the acceptor dye, there will be spillover into the APC and Alexa Fluor® 700 detectors. However, the spillover can be corrected through compensation as with any other dye combination.



Flow cytometric analysis of CD45R/B220 expression on mouse splenocytes using Biotin-conjugated Anti-Mouse CD45R/B220 antibody and BD Horizon™ BV650 Streptavidin. *Mouse splenic leucocytes were stained with Biotin Rat Anti-Mouse CD45R/B220 antibody (Cat. No. 553085/553086) followed by BD Horizon™ BV650 Streptavidin (Cat. No. 563855; solid line histogram) or with BD Horizon™ BV650 Streptavidin alone (dashed line histogram). 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.

Application Notes

Application

Flow cytometry	Routinely Tested

Recommended Assay Procedure:

BD Horizon™ BV650 Streptavidin is a useful second-step reagent for the indirect immunofluorescent staining of cells in combination with biotinylated primary antibodies for flow cytometric analysis.

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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)
563794	Brilliant Stain Buffer	5 mL	(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 www.bdbiosciences.com/pharmingen/protocols 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 Edition.* Hoboken, NJ: Wiley-Liss, Inc; 2003:1-681. (Methodology: Flow cytometry)

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