

Technical Data Sheet

BV510 Mouse Anti-Biotin

Product Information

Material Number:	758018
Size:	50 µg
Clone:	BK-1/39
Isotype:	Mouse IgG1, κ
Application:	Flow cytometry(Qualified)
Concentration:	0.2 mg/ml
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.
Regulatory Status:	RUO

Description

The BK-1/39 monoclonal antibody specifically recognizes biotin. Biotin is a water-soluble B complex vitamin that functions as a coenzyme which is required for the cellular metabolism of proteins and fats and the production of fatty acids. Although required by all organisms, biotin synthesis is limited to bacteria, yeasts, molds, algae, and some plants. Biotin is also useful for tagging molecules such as nucleic acids or proteins including antibodies. The BK-1/39 antibody can be used to detect biotinylated target molecules and antibodies especially when signal amplification is desired. Fluorescent BK-1/39 antibody conjugates can provide a useful alternative to fluorescent avidin conjugates in order to minimize background staining and maximize signal intensity.

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 to the dye under optimum conditions that minimize unconjugated dye and antibody.

Recommended Assay Procedure

BD™ CompBeads can be used as surrogates to assess fluorescence spillover (Compensation). When fluorochrome conjugated antibodies are bound to 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 CompBead to ensure that BD Comp beads 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).

Suggested Companion Products

Catalog Number	Name	Size
566349	Brilliant Stain Buffer	100 Tests
554656	Stain Buffer (FBS)	500 mL
554657	Stain Buffer (BSA)	500 mL
566385	Brilliant Stain Buffer Plus	1000 Tests
555899	Lysing Buffer	100 mL
562946	BV510 Mouse IgG1, κ Isotype Control	50 µg

Product Notices

1. Please refer to www.bdbiosciences.com/us/s/resources for technical protocols.
2. Please refer to <http://regdocs.bd.com> to access safety data sheets (SDS).

3. For U.S. patents that may apply, see bd.com/patents.
4. 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.
5. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
6. 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.
7. Human donor specific background has been observed in relation to the presence of anti-polyethylene glycol (PEG) antibodies, developed as a result of certain vaccines containing PEG, including some COVID-19 vaccines. We recommend use of BD Horizon Brilliant™ Stain Buffer in your experiments to help mitigate potential background. For more information visit <https://www.bdbiosciences.com/en-us/support/product-notices>.
8. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
9. An isotype control should be used at the same concentration as the antibody of interest.

References

Zempleni J, Wijeratne SS, Hassan YI. Biotin.. *Biofactors*. 2009; 35(1):36-46. (Biology).

Levit-Zerdoun E, Becker M, Pohlmeyer R, et al. Survival of Igα-Deficient Mature B Cells Requires BAFF-R Function.. *J Immunol*. 2016; 196(5):2348-60. (Clone-specific: Flow cytometry).

Pishesha N, Bilate AM, Wibowo MC, et al. Engineered erythrocytes covalently linked to antigenic peptides can protect against autoimmune disease.. *Proc Natl Acad Sci U S A*. 2017; 114(12):3157-3162. (Clone-specific: Flow cytometry).

Mavrangelos C, Swart B, Nobbs S, Nicholson IC, Macardle PJ, Zola H. Detection of low-abundance membrane markers by immunofluorescence--a comparison of alternative high-sensitivity methods and reagents.. *J Immunol Methods*. 2004; 289(1-2):169-78. (Methodology: Flow cytometry).

BD Biosciences

bdbiosciences.com

United States 877.232.8995	Canada 888.268.5430	Europe 32.53.720.550	Japan 0120.8555.90	Asia Pacific 65.6861.0633	Latin America/Caribbean 0800.771.7157
-------------------------------	------------------------	-------------------------	-----------------------	------------------------------	--

For country contact information, visit bdbiosciences.com/contact

Conditions: The information disclosed herein is not to be construed as a recommendation to use the above product in violation of any patents. BD Biosciences will not be held responsible for a patent infringement or other

©2020 BD. All rights reserved. Unless otherwise noted, BD, the BD Logo and all other trademarks are the property of Becton, Dickinson and Company or its affiliates.