

Technical Data Sheet

BV510 Rat Anti-Human LRRC15

Product Information

Material Number:	772168
Size:	50 µg
Clone:	CC6-469
Alternative Name:	LIB; LRRC15; hLib; leucine-rich repeat-containing protein 15
Reactivity:	Tested in Development:Human
Isotype:	Rat F344, also known as Fischer, CDF 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 CC6-469 monoclonal antibody specifically recognizes Leucine-rich repeat-containing protein 15 (LRRC15). LRRC15 is a single-pass type I transmembrane glycoprotein that is encoded by LRRC15 which belongs to the Leucine-rich repeat (LRR) domain superfamily. LRRC15 is a 581 amino acid protein with 15 extracellular LRRs, a transmembrane region, and a short intracellular tail. LRRC15 is expressed by stromal cells found in the placenta, skin, lymphoid tissues, and by activated fibroblasts in wounds. LRRC15 is also expressed on fibroblasts in solid tumors including those of the breast, lung, head and neck, and pancreas and on cancer cells of mesenchymal origin found in sarcomas, melanomas, and glioblastomas. LRRC15 is involved in cell-to-cell and cell-to-extracellular matrix (ECM) interactions. LRRC15 expression can be highly upregulated by cancer-associated fibroblasts (CAFs) in response to TGF-β that reside in the tumor microenvironment.

The BD Horizon Brilliant Violet™ 510 (BV510) Dye is part of the BD Horizon Brilliant Violet™ family of dyes. This polymer-technology based dye with an excitation maximum (Ex Max) at 327-nm / 405-nm and an emission maximum (Em Max) at 512-nm. BV510, driven by BD innovation, is designed to be excited by the violet laser (405-nm) and detected using an optical filter centered near 510-nm (e.g., a 525/50 bandpass filter). The dye can be excited by the UV (355-nm) laser resulting in cross-laser excitation and spillover. Please ensure that your instrument's configurations (lasers and optical filters) are appropriate for this dye.

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
349202	Lysing Solution 10X Concentrate	100 mL
564220	Human BD Fc Block™	50 µg
563039	BV510 Rat 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. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
8. An isotype control should be used at the same concentration as the antibody of interest.
9. 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>.

References

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Ben-Ami E, Perret R, Huang Y, et al. LRRC15 Targeting in Soft-Tissue Sarcomas: Biological and Clinical Implications.. *Cancers (Basel)*. 2020; 12(3):757. (Biology).

Dominguez CX, Müller S, Keerthivasan S, et al. Single-Cell RNA Sequencing Reveals Stromal Evolution into LRRC15+ Myofibroblasts as a Determinant of Patient Response to Cancer Immunotherapy.. *Cancer Discov*. 2020; 10(2):232-253. (Biology).

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