

Technical Data Sheet

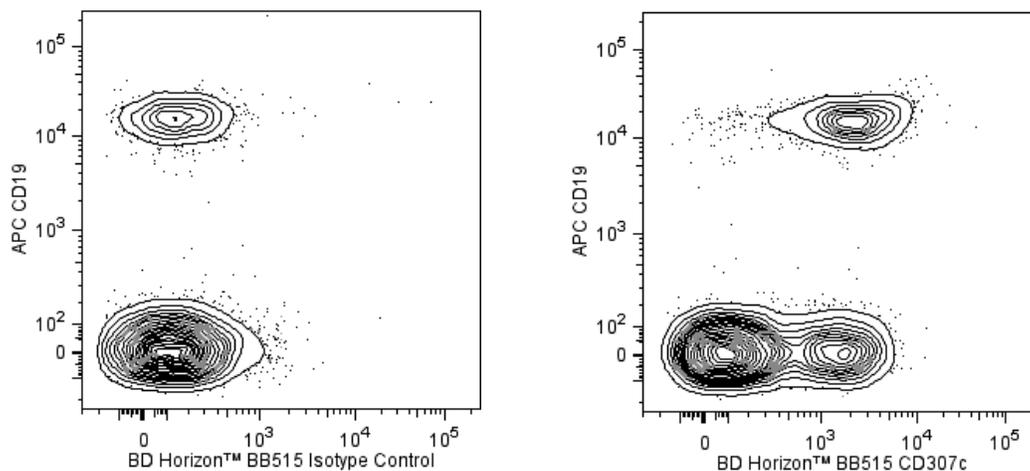
BB515 Mouse Anti-Human CD307c**Product Information**

Material Number:	565026
Alternate Name:	FCRL3; Fc receptor-like 3; FcRH3; IRTA3; IFGP3; hIFGP3; SPAP2
Size:	100 Tests
Vol. per Test:	5 µl
Clone:	H5
Immunogen:	Recombinant Human FCRL3
Isotype:	Mouse IgG2b, κ
Reactivity:	QC Testing: Human
Workshop:	IX 22
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The H5 monoclonal antibody specifically binds to CD307c which is also known as Fc receptor-like 3 (FCRL3), Immune receptor translocation-associated protein 3 (IRTA3), IFGP family protein 3 (IFGP3), and SH2 domain-containing phosphatase anchor protein 2 (SPAP2). The *FCRL3* gene is present in humans but not in mice. CD307c is a type I transmembrane glycoprotein that belongs to the FCRL family within the Ig gene superfamily. CD307c shares sequence homology with classical the Fc receptors. CD307c is expressed on subsets of B cells, plasma cells, NK cells, CD8+ T cells, and CD4+ natural T regulatory cells. CD307c isoforms contain multiple extracellular Ig domains and immunoreceptor-tyrosine activation (ITAM) and inhibitory (ITIM) motifs in their intracellular domains. CD307c may be involved in the regulation of immune responses. Genetic variation in *FCRL3* has been associated with susceptibility to certain autoimmune diseases.

The antibody was conjugated to BD Horizon BB515 which is part of the BD Horizon Brilliant™ Blue family of dyes. With an Ex Max near 490 nm and an Em Max near 515 nm, BD Horizon BB515 can be excited by the blue laser (488 nm) laser and detected with a 530/30 nm filter. This dye has been exclusively developed by BD Biosciences and is up to seven times brighter than FITC with less spillover into the PE channel. Due to similar excitation and emission properties, BB515, FITC, and Alexa Fluor® 488 cannot be used simultaneously. It is not recommended to use BB515 in cocktails that include Streptavidin conjugates as it may cause high background.



Two-color flow cytometric analysis of human CD307c expression on human peripheral blood lymphocytes. Whole blood was stained with APC Mouse Anti-Human CD19 antibody (Cat. No. 555415/561742) and either BD Horizon™ BB515 Mouse IgG2b, κ Isotype Control (Cat. No. 564510; Left Plot) or BD Horizon™ BB515 Mouse Anti-Human CD307c antibody (Cat. No. 565026; Right Plot). Erythrocytes were lysed with BD FACS Lysing Solution (Cat. No. 349202). Two-color flow cytometric contour plots showing the correlated expression of CD307c (or Ig Isotype control staining) versus CD19 were derived from gated events with the forward and side light-scatter characteristics of viable lymphocytes. Flow cytometric analysis was performed using a BD™ LSR II Flow Cytometer System.

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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™ BB515 under optimum conditions and unconjugated antibody was 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 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).

For optimal results, it is recommended to perform 2 washes after staining with antibodies. Cells may be prepared, stained with antibodies and washed twice with wash buffer per established protocols for immunofluorescence staining, prior to acquisition on a flow cytometer. Performing fewer than the recommended wash steps may lead to increased spread of the negative population.

Suggested Companion Products

Catalog Number	Name	Size	Clone
564510	BB515 Mouse IgG2b, κ Isotype Control	50 µg	27-35
554656	Stain Buffer (FBS)	500 mL	(none)
554657	Stain Buffer (BSA)	500 mL	(none)
563794	Brilliant Stain Buffer	100 Tests	(none)
555415	APC Mouse Anti-Human CD19	100 Tests	HIB19
561742	APC Mouse Anti-Human CD19	25 Tests	HIB19
349202	BD FACSTM Lysing Solution	100 mL	(none)
555899	Lysing Buffer	100 mL	(none)
566349	Brilliant Stain Buffer	1000 Tests	(none)
566385	Brilliant Stain Buffer Plus	1000 Tests	(none)

Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1×10^6 cells in a 100-µl experimental sample (a test).
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 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.
6. Please refer to <http://regdocs.bd.com> to access safety data sheets (SDS).
7. Please refer to www.bdbiosciences.com/us/s/resources for technical protocols.

References

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- Nagata S, Ise T, Pastan I. Fc receptor-like 3 protein expressed on IL-2 nonresponsive subset of human regulatory T cells. *J Immunol.* 2009; 182(12):7518-7526. (Immunogen: ELISA, Flow cytometry, Fluorescence activated cell sorting, Functional assay)
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