

Technical Data Sheet

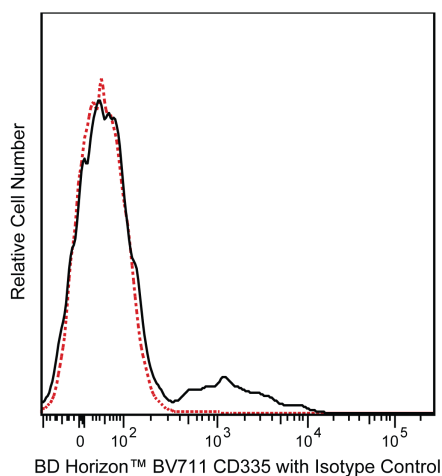
BV711 Mouse Anti-Human CD335 (NKp46)**Product Information**

Material Number:	563043
Alternate Name:	NCR1; NK-p46; hNKp46; LY94; Natural cytotoxicity triggering receptor 1
Size:	50 Tests
Vol. per Test:	5 µl
Clone:	9E2/NKp46 (also known as 9-E2)
Immunogen:	Human NKp46 Recombinant Protein
Isotype:	Mouse (BALB/c) IgG1, κ
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The 9E2/NKp46 monoclonal antibody specifically binds to CD335. CD335 is also known as the Natural killer cell p46-related protein (NKp46) and the Natural cytotoxicity triggering receptor 1 (NCR1). CD335 is a 46 kDa type I membrane glycoprotein that is expressed on resting and activated NK cells. Its extracellular region contains two C2-type, Ig-like domains. The transmembrane domain contains a positively charged amino acid (Arg) which could be involved in stabilizing the association with CD3ζ. Its intracellular region does not contain immunoreceptor tyrosine-based activating motifs (ITAM), but it is linked to intracytoplasmic transduction machinery by its association with CD3ζ and FcεRIγ adaptor proteins. CD335 along with NKp30 and NKp44 are referred to as natural cytotoxicity receptors (NCR). These receptors play very important roles in cells that kill virus-infected target cells, tumor cells and MHC-class I-unprotected cells.

The antibody was conjugated to BD Horizon BV711 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 711-nm. BD Horizon BV711 can be excited by the violet laser and detected in a filter used to detect Cy™5.5 / Alexa Fluor® 700-like dyes (eg, 712/20-nm filter). Due to the excitation and emission characteristics of the acceptor dye, there may be moderate spillover into the Alexa Fluor® 700 and PerCP-Cy5.5 detectors. However, the spillover can be corrected through compensation as with any other dye combination.



Flow cytometric analysis of CD335 expression on human peripheral blood lymphocytes. Whole blood was stained with BD Horizon™ BV711 Mouse Anti-Human CD335 (NKp46) antibody (Cat. No. 563043; solid line histogram) or with a BD Horizon™ BV711 Mouse IgG1, κ Isotype Control (Cat. No. 563044; dashed line histogram). Erythrocytes were lysed with BD PharmLyse™ Lysing Buffer (Cat. No. 555899). The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of viable lymphocytes. Flow cytometry 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.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated with BD Horizon™ BV711 under optimum conditions, and unconjugated antibody and free BD Horizon™ BV711 were removed.

Application Notes**Application**

Flow cytometry	Routinely Tested
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Recommended Assay Procedure:

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	Clone
555899	Lysing Buffer	100 mL	(none)
563044	BV711 Mouse IgG1, k Isotype Control	50 µg	X40
554656	Stain Buffer (FBS)	500 mL	(none)
349202	BD FACST [™] Lysing Solution	100 mL	(none)
554657	Stain Buffer (BSA)	500 mL	(none)
563794	Brilliant Stain Buffer	100 Tests	(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. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
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. Alexa Fluor® is a registered trademark of Molecular Probes, Inc., Eugene, OR.
6. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
7. BD Horizon Brilliant Violet 711 is covered by one or more of the following US patents: 8,110,673; 8,158,444; 8,227,187; 8,455,613; 8,575,303; 8,354,239.
8. 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.
9. Cy is a trademark of GE Healthcare.
10. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

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