

Technical Data Sheet

BV421 Rat Anti-Mouse CD147

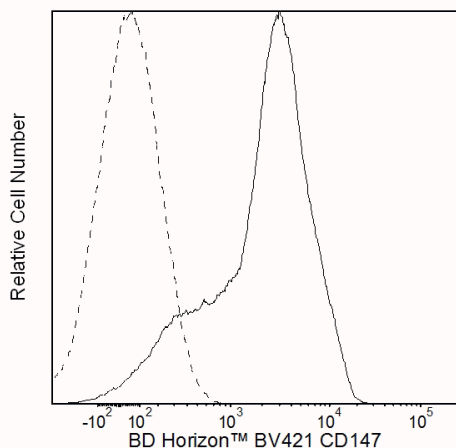
Product Information

Material Number:	562934
Alternate Name:	Bsg; Basigin; BASI; EMMPRIN; gp 42; HT7; HT-7; Neurothelin
Size:	50 µg
Concentration:	0.2 mg/ml
Clone:	RL73 (also known as RL73.2)
Immunogen:	Mouse EL4 Cell Subline
Isotype:	Rat (OFA) IgG2a, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The RL73 monoclonal antibody specifically binds to mouse CD147. CD147 is type I membrane glycoprotein and member of the Ig superfamily. CD147 is also known as extracellular matrix metalloproteinase inducer (EMMPRIN) and gp42/basigin (BSG). The CD147 molecule is widely expressed on a variety of hemopoietic and non-hemopoietic cell types including thymocytes, lymphocytes, monocytes, granulocytes, erythroblasts and erythrocytes, endothelial cells and neoplasms. CD147 reportedly plays significant roles in the reproductive, nervous and immune systems and in tumor progression. In the immune system, CD147 can function as an adhesion molecule and signaling receptor that regulates leukocyte trafficking and immune and inflammatory responses.

The antibody was conjugated to BD Horizon™ BV421 which is part of the BD Horizon™ Brilliant Violet™ family of dyes. With an Ex Max of 407-nm and Em Max at 421-nm, BD Horizon™ BV421 can be excited by the violet laser and detected in the standard Pacific Blue™ filter set (eg, 450/50-nm filter). BD Horizon™ BV421 conjugates are very bright, often exhibiting a 10 fold improvement in brightness compared to Pacific Blue™ conjugates.



Flow cytometric analysis of CD147 expression on BALB/c mouse thymocytes. Thymocytes were stained with either BD Horizon™ BV421 Rat IgG2a, κ Isotype Control (Cat. No. 562602; dashed line histogram) or BD Horizon™ BV421 Rat Anti-Mouse CD147 antibody (Cat. No. 562934; solid line histogram). The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of viable thymocytes. 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™ BV421 under optimum conditions, and unconjugated antibody and free BD Horizon™ BV421 were removed.

Application Notes

Application

Flow cytometry	Routinely Tested
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Suggested Companion Products

Catalog Number	Name	Size	Clone
554656	Stain Buffer (FBS)	500 ml	(none)
562602	BV421 Rat IgG2a, κ Isotype Control	50 µg	R35-95

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Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
3. An isotype control should be used at the same concentration as the antibody of interest.
4. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
5. 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.
6. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
7. Pacific Blue™ is a trademark of Molecular Probes, Inc., Eugene, OR.
8. Brilliant Violet™ 421 is a trademark of Sirigen.

References

Arora K, Gwinn WM, Bower MA, Watson A, Okwumabua I, MacDonald HR, Bukrinsky MI, Constant SL. Extracellular cyclophilins contribute to the regulation of inflammatory responses. *J Immunol.* 175(1):517-522. (Clone-specific: Flow cytometry, Inhibition, In vivo exacerbation)

Coste I, Gauchat JF, Wilson A, Izui S, Jeannin P, Delneste Y, MacDonald HR, Bonnefoy JY, Renno T. Unavailability of CD147 leads to selective erythrocyte trapping in the spleen. *Blood.* 2001; 97(12):3984-3988. (Clone-specific: Blocking, In vivo exacerbation)

MacDonald HR, Lees RK, Bron C. Cell surface glycoproteins involved in the stimulation of interleukin 1-dependent interleukin 2 production by a subline of EL4 thymoma cells. I. Functional characterization by monoclonal antibodies. *J Immunol.* 1985; 135(6):3944-3950. (Immunogen: Activation, Blocking, Radioimmunoassay)

Renno T, Wilson A, Dunkel C, et al. A role for CD147 in thymic development. *J Immunol.* 2002; 168(10):4946-4950. (Clone-specific: Flow cytometry, Fluorescence activated cell sorting, Inhibition)

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