Technical Data Sheet

BV510 Hamster Anti-Mouse CD95

Product Information

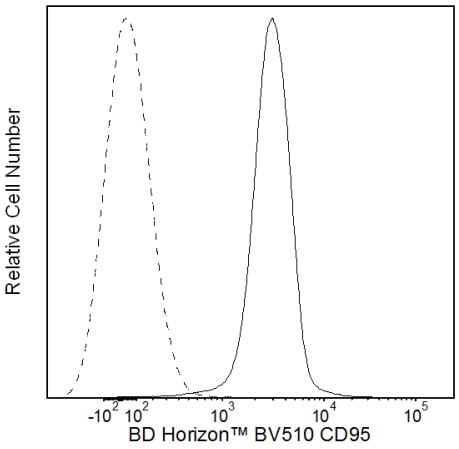
Material Number:	**563646**
Alternate Name:	Apo-1; Apt1; Fas; FASLG receptor; lpr; TNFR6; Tnfrsf6; TNR6
Size:	50 µg
Concentration:	0.2 mg/ml
Clone:	Jo2
Immunogen:	WR19L mouse lymphoma cells transformed with recombinant mouse Fas
Isotype:	Armenian Hamster IgG2, λ2
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

Fas antigen, CD95, is a 45 kDa cell-surface protein which can mediate apoptosis. It belongs to the TNF (tumor necrosis factor)/NGF receptor family. Expression of Fas has been described in the thymus, liver, heart, lung and ovary. Fas plays an important role in the apoptotic process that takes place during development. Monoclonal antibodies recognizing Fas such as Jo2 have cytolytic activity on cells expressing Fas. The cell death stimulated by Fas antibodies is characteristic of apoptosis and suggests that the lethal effects are a result of interaction of antibody with a functional Fas antigen as opposed to complement-mediated lysis.

The Jo2 antibody recognizes mouse Fas. The Jo2 antibody shows cytolytic activity against cell lines expressing mouse Fas by inducing apoptosis. Intraperitoneal injections of Jo2 mAb have been shown to kill mice and induce apoptotic hepatocyte death. Jo2 mAb has been reported to immunoprecipitate mouse Fas as a 45 kDa band from W4 cells. W4 cells are WR19L mouse lymphoma cells transformed with mouse Fas. The difference between the observed MW of Fas and that deduced from its amino acid sequence (Mr 34,971) may be due to glycosylation.

The antibody was conjugated to BD Horizon™ BV510 which is part of the BD Horizon™ Brilliant Violet™ family of dyes. With an Ex Max of 405-nm and Em Max at 510-nm, BD Horizon™ BV510 can be excited by the violet laser and detected in the BD Horizon™ V500 (525/50-nm) filter set. BD Horizon™ BV510 conjugates are useful for the detection of dim markers off the violet laser.



Flow cytometric analysis of CD95 expression on mouse thymocytes. *Mouse thymocytes were preincubated with Purified Rat Anti-Mouse CD16/CD32 antibody (Mouse BD Fc Block™) (Cat. No. 553141/553142). The cells were then stained with either BD Horizon™ BV510 Hamster IgG2, λ 1 isotype control (Cat. No. 563085; dashed line histogram) or BD Horizon™ BV510 Hamster Anti-Mouse CD95 antibody (Cat. No. 563646; solid line histogram). The fluorescence histograms were derived from events with the forward and side light-scatter characteristics of viable thymocytes. Flow cytometric analysis 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™ BV510 under optimum conditions, and unconjugated antibody and free BD Horizon™ BV510 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)
563085	BV510 Hamster IgG2, λ1 Isotype Control	50 µg	Ha4/8
553141	Purified Rat Anti-Mouse CD16/CD32 (Mouse BD Fc Block™)	0.1 mg	2.4G2
553142	Purified Rat Anti-Mouse CD16/CD32 (Mouse BD Fc Block™)	0.5 mg	2.4G2

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. Brilliant Violet™ 510 is a trademark of Sirigen.
8. Although hamster immunoglobulin isotypes have not been well defined, BD Biosciences Pharmingen has grouped Armenian and Syrian hamster IgG monoclonal antibodies according to their reactivity with a panel of mouse anti-hamster IgG mAbs. A table of the hamster IgG groups, Reactivity of Mouse Anti-Hamster Ig mAbs, may be viewed at http://www.bdbiosciences.com/documents/hamster_chart_11x17.pdf.

References

Enari M, Hug H, Nagata S. Involvement of an ICE-like protease in Fas-mediated apoptosis. *Nature.* 1995; 375(6526):78-81. (Clone-specific: Functional assay)

Hiromatsu K, Aoki Y, Makino M, et al. Increased Fas antigen expression in murine retrovirus-induced immunodeficiency syndrome, MAIDS. *Eur J Immunol.* 1994; 24(10):2446-2451. (Clone-specific: Cytotoxicity, Flow cytometry, Immunoprecipitation)

Kagi D, Vignaux F, Ledermann B, et al. Fas and perforin pathways as major mechanisms of T cell-mediated cytotoxicity. *Science.* 1994; 265(5171):528-530. (Clone-specific: Flow cytometry, Functional assay)

Nagata S. Apoptosis regulated by a death factor and its receptor: Fas ligand and Fas. *Philos Trans R Soc Lond B Biol Sci.* 1994; 345(1313):281-287. (Clone-specific: Functional assay)

Nagata S. Fas and Fas ligand: a death factor and its receptor. *Adv Immunol.* 1994; 57:129-144. (Clone-specific: Functional assay)

Ni R, Tomita Y, Matsuda K, et al. Fas-mediated apoptosis in primary cultured mouse hepatocytes. *Exp Cell Res.* 1994; 215(2):332-337. (Clone-specific)

Ogasawara J, Suda T, Nagata S. Selective apoptosis of CD4+CD8+ thymocytes by the anti-Fas antibody. *J Exp Med.* 1995; 181(2):485-491. (Clone-specific: Flow cytometry, Immunoprecipitation)

Ogasawara J, Watanabe-Fukunaga R, Adachi M, et al. Lethal effect of the anti-Fas antibody in mice. *Nature.* 1993; 364(6440):806-809. (Immunogen: Functional assay, Immunoprecipitation)

Yang Y, Mercep M, Ware CF, Ashwell JD. Fas and activation-induced Fas ligand mediate apoptosis of T cell hybridomas: inhibition of Fas ligand expression by retinoic acid and glucocorticoids. *J Exp Med.* 1995; 181(5):1673-1682. (Clone-specific: Flow cytometry)

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