Technical Data Sheet

Purified NA/LE Hamster Anti-Mouse CD95

Product Information

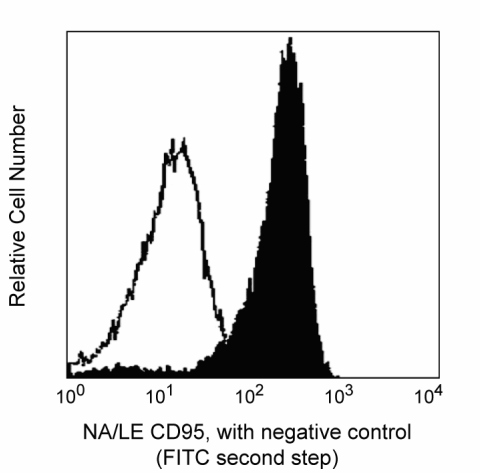
Material Number:	**554254**
Alternate Name:	Apo-1; Apt1; Fas; FASLG receptor; lpr; TNFR6; Tnfrsf6; TNR6
Size:	0.5 mg
Concentration:	1.0 mg/ml
Clone:	Jo2
Immunogen:	WR19L mouse lymphoma cells transformed with recombinant mouse Fas
Isotype:	Armenian Hamster IgG2, λ2
Reactivity:	QC Testing: Mouse
Target MW:	45 kDa
Storage Buffer:	No azide/low endotoxin: Aqueous buffered solution containing no preservative, 0.2μm sterile filtered. Endotoxin level is ≤0.01 EU/μg (≤0.001 ng/μg) of protein as determined by the LAL assay.

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.

Investigators are advised that the Purified NA/LE Hamster Anti-Mouse CD95 (Cat. No. 554254) antibody is not routinely tested for *in vivo* function. *In vivo* performance may vary and investigators are encouraged to include appropriate controls for each experiment.



Expression of Fas on mouse thymocytes analyzed by flow cytometry. *Thymocytes from a C57BL/6 mouse were incubated with either Jo2 followed by a FITC-conjugated mouse anti-hamster second step (Cat. No. 554011, filled histogram) or with only second step (open histogram). Jo2 specifically stained approximately 80% of the cells.*

Preparation and Storage

Store undiluted at 4°C.
This preparation contains no preservatives, thus it should be handled under aseptic conditions.
The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

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Application Notes

Application

Flow cytometry	Routinely Tested
Cytotoxicity	Reported
Immunoprecipitation	Reported

Suggested Companion Products

Catalog Number	Name	Size	Clone
554011	FITC Mouse Anti-Armenian and Syrian Hamster IgG Cocktail	0.5 mg	(none)
553961	Purified NA/LE Hamster IgG2, λ1 Isotype Control	0.5 mg	Ha4/8

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. 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.
3. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

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: Flow cytometry, Functional assay, 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, Immunoprecipitation)

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)

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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: Functional assay)

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, Functional assay, 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: Flow cytometry, 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, Immunoprecipitation)

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