Technical Data Sheet

PE Hamster Anti-Mouse CD95

Product Information

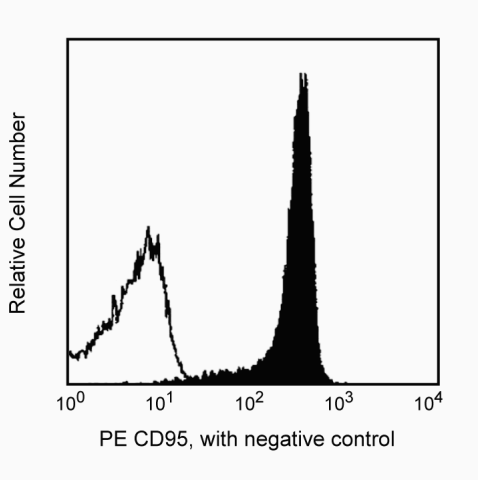
Material Number:	**554258**
Alternate Name:	Fas/APO-1
Size:	0.2 mg
Concentration:	0.2 mg/ml
Clone:	Jo2
Immunogen:	WR19L mouse lymphoma cells transformed with recombinant mouse Fas
Isotype:	Armenian Hamster IgG2, λ2
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing ≤0.09% 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 immunoprecipitates 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.

This antibody is routinely tested by flow cytometric analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.



Expression of Fas on mouse thymocytes analyzed by flow cytometry. *Thymocytes from a BALB/c mouse were incubated with either PE-conjugated Jo2 (filled histogram) or left unstained (open histogram). Jo2 specifically stained more than 90% of the cells.*

Preparation and Storage

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

The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed by gel filtration chromatography.

Store undiluted at 4° C and protected from prolonged exposure to light. Do not freeze.

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Application Notes

Application

Flow cytometry	Routinely Tested

Recommended Assay Procedure:

The NA/LE format (No Azide/Low Endotoxin, Cat. No. 554254) of Jo2 should be used for both in vitro and in vivo apoptosis assays. The other formats contain azide and have not been specifically prepared to ensure low endotoxin levels. The presence of sodium azide and/or endotoxin in other formats may affect the results of functional assays, both in vitro and in vivo.

Suggested Companion Products

Catalog Number	Name	Size	Clone
553965	PE Hamster IgG2, λ1 Isotype Control	0.1 mg	Ha4/8

Product Notices

1. 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/pharmingen/hamster_chart_11x17.pdf.
2. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
3. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
4. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/pharmingen/colors.
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.

References

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)

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)

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: Cytotoxicity, 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)

Refaeli Y, Van Parijs L, London CA, Tschopp J, Abbas AK. Biochemical mechanisms of IL-2-regulated Fas-mediated T cell apoptosis. *Immunity.* 1998; 8(5):615-623.(Clone-specific: Flow cytometry, Immunoprecipitation)

Watanabe-Fukunaga R, Brannan CI, Copeland NG, Jenkins NA, Nagata S. Lymphoproliferation disorder in mice explained by defects in Fas antigen that mediates apoptosis. *Nature.* 1992; 356(6367):314-317.(Biology)