

Technical Data Sheet

FITC Mouse Anti-Human Bcl-2 Set

Product Information

Material Number:	556357
Size:	100 tests
Reactivity:	QC Testing: Human
Component:	51-65114X
Description:	FITC Mouse Anti-Human Bcl-2
Size:	100 tests (1 ea)
Vol. per Test:	20 µl
Clone Name:	Bcl-2/100
Immunogen:	Human Bcl-2 synthetic peptide aa. 41-54
Isotype:	Mouse IgG1, κ
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.
Component:	51-13854X-5
Description:	FITC Mouse IgG1, κ Isotype Control
Size:	100 tests (1 ea)
Vol. per Test:	20 µl
Clone Name:	MOPC-21
Isotype:	Mouse IgG1, κ
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

Programmed cell death (apoptosis) is a normal physiologic process which occurs during embryonic development as well as in maintenance of tissue homeostasis. The apoptotic program is characterized by certain morphological features. These include changes in the plasma membrane such as loss of membrane asymmetry and attachment, a condensation of the cytoplasm and nucleus, and internucleosomal cleavage of DNA. In the final stages, the dying cells become fragmented into “apoptotic bodies” which are rapidly eliminated by phagocytic cells without eliciting significant inflammatory damage to surrounding cells. Members of the Bcl-2 family play a major role in regulating the response of cells to apoptotic signals. Bcl-2 is considered to be novel among proto-oncogenes because it blocks apoptosis in many cell types. Bcl-2 is thought to provide selective survival advantage for cells by blocking apoptosis and thus may contribute to tumorigenesis. Bcl-2 is a 26 kDa intracellular, integral membrane protein found primarily in the nuclear envelope, endoplasmic reticulum and outer mitochondrial membrane.

Clone Bcl-2/100 reacts with human Bcl-2. It does not cross-react with mouse Bcl-2. A synthetic peptide corresponding to amino acids 41-54 (GAAPAPGIFSSQPG) of human Bcl-2 was used as immunogen. This peptide sequence is not conserved between human and mouse. Clone Bcl-2/100 was initially characterized by western blotting and immunohistochemistry of frozen and paraffin-embedded tissue sections. Clone MOPC-21 is a mouse IgG1 isotype control. The MOPC-21 antibody has unknown specificity. The Bcl-2/100 and MOPC-21 FITC conjugates are matched in F/P ratios. The optimum F/P ratio was experimentally determined by flow cytometric analysis.

Preparation and Storage

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

The antibody was conjugated with FITC under optimum conditions, and unreacted FITC was removed.

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

Application Notes

Application

Intracellular staining (flow cytometry)	Routinely Tested
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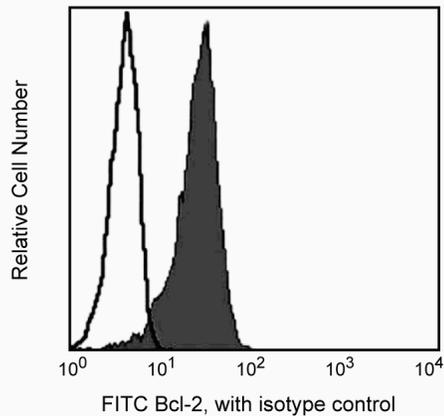
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Profile of permeabilized peripheral blood lymphocytes analyzed on a FACScan™ (BDIS, San Jose, CA). Cells were stained with anti-human Bcl-2-FITC (clone Bcl-2/100) or an IgG1-FITC isotype control.

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- μ l experimental sample (a test).
2. This antibody has been optimized and preassayed with its matched isotype control to be used at the recommended volume of 20 μ l/test. Titration of the reagents or substituting with other (non-matched) isotype control is NOT recommended.
3. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
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. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

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- Pezzella F, Turley H, Kuzu I, et al. bcl-2 protein in non-small-cell lung carcinoma. *N Engl J Med.* 1993; 329(10):690-694.(Clone-specific: Immunohistochemistry)
- Reed JC, Meister L, Tanaka S, et al. Differential expression of bcl2 protooncogene in neuroblastoma and other human tumor cell lines of neural origin. *Cancer Res.* 1991; 51(24):6529-6538.(Clone-specific)
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- Yang J, Liu X, Bhalla K, et al. Prevention of apoptosis by Bcl-2: release of cytochrome c from mitochondria blocked. *Science.* 1997; 275(5303):1129-1132. (Biology)