

## Anti-BCL-XL Antibody (3V974)

## Product Details

Ig Type:	Mouse IgG1
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	3V974
Purification:	Protein A

## Applications

Verified Activity:	Flow cytometric analysis of Purified anti-Human BCL2L1 (Bcl-xL) on HeLa cells. HeLa cells were treated according to manufacturer's manual (BD Pharmingen™ Cat. No. 554714), and stained with Purified Mouse anti-BCL2L1 (Bcl-xL) (Bold line hisgram), then stained with a FITC-conjugated second step antibody. To demonstrate specificity of staining the binding of Anti-BCL-XL Antibody was blocked by the preincubation of the purified antibody with molar excess of recombinant human BCL2L1 (Bcl-xL) (5 µg) for 1 hour (dashed line hisgram).
Application:	ELISA
Recommended	ELISA: 1:1000-1:2000

## Properties

Stability & Storage:	Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles. Preservative-Free.
Shipping:	Shipping with blue ice.

## Antigen Details

Immunogen:	Recombinant Protein: Human Bcl-XL / BCL2L1 protein (TMPY-02431)
Antigen Species:	Human
Synonyms:	Bcl(X)L;BclX;bcl2-L-1;BCL2-like 1;Bcl-XL;bcl-x;Bcl2l

## Research Background

B-cell lymphoma-extra large (Bcl-xl) is a transmembrane molecule in the mitochondria. Bcl-xL (BCL2L1), belongs to the Bcl-2 family. Members of the bcl-2 family encode proteins that function either to promote or to inhibit apoptosis. Antiapoptotic members such as Bcl-2 and Bcl-xL prevent PCD in response to a wide variety of stimuli to take part in cancer survival. Conversely, proapoptotic proteins, exemplified by Bax and Bak, can accelerate death and in some instances are sufficient to cause apoptosis independent of additional signals. The crystal and solution structures of a Bcl-2 family member, Bcl-xL is like this: The structures consist of two central, primarily hydrophobic  $\alpha$ -helices, which are surrounded by amphipathic helices. A 60-residue loop connecting helices  $\alpha$ 1 and  $\alpha$ 2 was found to be flexible and non-essential for anti-apoptotic activity. Bcl-xL is characterized as an important factor in autophagy, inhibiting Beclin 1-mediated autophagy by binding to Beclin 1. In addition, Beclin 1, Bcl-2 and Bcl-xL can cooperate with Atg5 or Ca<sup>2+</sup> to regulate both autophagy and apoptosis. Bcl-xL is also implicated in anoxia induced cell death. The pathway is initiated by the loss of function of the prosurvival Bcl-2 family members Mcl-1 and Bcl-2 / Bcl-XL, resulting in Bax- or Bak-dependent release of cytochrome c and subsequent caspase-9-dependent cell death. Thus, Bcl-xL, the well-characterized apoptosis guards, appears to be important in cell death.

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