# Technical Data Sheet

# **Bcl-2 Related Sampler Kit**

#### **Product Information**

**Material Number:** 612742 Size: 10 µg Concentration:  $250 \mu g/ml$ 

Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium Storage Buffer:

#### Description

Members of the Bcl-2 protein family contains 1 to 4 bcl-2 homology domains (BH1-4), and in some cases, C-terminal hydrophobic regions that promote membrane binding. Bcl-2 is the prototypic anti-apoptotic gene that encodes two protein products, Bcl-2a and Bcl-2b, which differ at their C-terminal hydrophobic regions that localize them to the mitochrondrial membrane. Bcl-2 inhibition of apoptosis is modulated by homodimerization or heterodimirezetion with Bax, Bad and Beclin. Like Bcl-2, Bcl-xL inhibits cell death. Bcl-x proteins include, bcl-xL and bcl-xS, which arise from alternate 5' splice sites located within the first coding exon of the bcl-x gene. Bcl-xL is 233 aa, and is similar in size and structure to Bcl-2. The bcl-xS polypeptide shows a deletion of 63 aa, which consist of the region of Bcl-xL with the highest degree of amino acid identity to Bcl-2. Bcl-xS inhibits Bcl-2 mediated cell survival. Anti-apoptotic functions of Bcl-2 and Bcl-x are regulated through interactions with Bax, Bak, Bad, Bid, Bim, and Bik. Bax contains the conserved BH1 and BH2 domains, which allow for its homodimerization or heterodimerization with Bcl-2. The ratio of Bax homodimers to Bax/Bcl-2 heterodimers is an apoptotic checkpoint. Bad contains BH1 and BH2 domains, and dimerizes with Bcl-xL and Bcl-2. Bid contains a BH3 domain, but does not contain other Bcl-2 family domains. Caspase-8 cleavage of Bid produces a 15 kDa C-terminal fragment and a 6.5 kDa N-terminal fragment. The C-terminal fragment translocates to the mitochondria and promotes the release of cytochrome C during apoptosis.

Antibody	Component No.	Cat#(50μg)	Isotype	MW	WB	ΙP	IF	ΙH	Human	Dog	Rat	Mouse	Chick	Control	Dilution
Bad	51-9001911	610391	lgG2b	23	+	_	+	+	+		+	+		A431	1:500
BAG-1	51-9002071	611868	lgG1	50/46	+		-		+					HeLa	1:15,000
Bax	51-9001914	610982	lgG1	21	+	nat/den	+		+	+				HepG2	1:250
Bcl-2	51-9001912	610538	lgG1	26	+	nat/den	+		+	+	+	+	+	Jurkat	1:500
Bcl-x	51-9001909	610209	lgG2b	26	+	-	+	+	-	-	+	+	+	Mouse Macrophage	e 1:500
Bcl-x	51-9001913	610746	lgG1	26	+	-	+	+	+		+	+		Human Endothelial	1:500
Beclin	51-9001910	612112	lgG2a	61	+		-	+	+	+	+	+	+	Jurkat	1:500
Bid	51-9001916	611528	lgG1	23	+		+		+			-		Jurkat	1:250
Bid	51-9001908	611866	lgG1	23	+		-		-			+		Macrophage+IFNg/	'L 1:1000

IP: nat = native condition, den = denaturing conditions

Dilutions are recommended based on western blotting on the indicated positive control.

This kit includes 10 µg of each antibody listed at a concentration of 250 µg/ml. No substitutions allowed.

#### **Preparation and Storage**

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. Store undiluted at -20°C.

## **Application Notes**

Application

11	
Western blot	Routinely Tested

#### **Recommended Assay Procedure:**

Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western Blotting.shtml

# **Suggested Companion Products**

Catalog Number	Name	Size	Clone
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)

## **Product Notices**

Since applications vary, each investigator should titrate the reagent to obtain optimal results.

### **BD Biosciences**

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- 2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
- 3. 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.
- 4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

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