

# Apoptosis

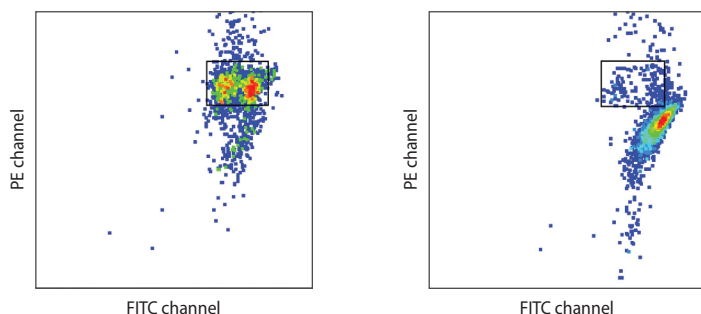
## NEW Reagents for Apoptosis Research

Apoptosis is a highly regulated, evolutionary conserved pathway of cell death. While apoptosis plays a key role in normal cell development and tissue homeostasis, it may also become dysregulated, and impaired apoptosis processes are implicated in numerous biological disorders, including cancer and autoimmune disease.

Apoptosis typically occurs in a succession of key steps, including induction, activation, and execution. eBioscience offers a wide variety of reagents which can be used to induce apoptosis *in vitro*, as well as those which can qualitatively and quantitatively monitor activation and execution phases.

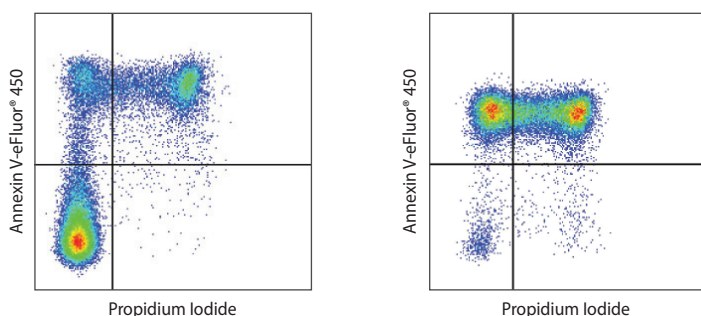
### JC-1 Mitochondrial Membrane Potential Dye

JC-1 membrane permeable dye selectively enters mitochondria and is widely used for determining mitochondrial membrane potential, an important component of apoptosis, by both flow cytometry and fluorescence microscopy. Increases in mitochondrial membrane potential / polarization (> 80-100 mV) promote the reversible formation of JC-1 aggregates, which display a shift in emitted light, (JC-1 monomeric form ~530 nm whereas emission of aggregate ~590 nm when excited at 488 nm). Both colors can be detected using filters for FITC and PE or rhodamine, respectively.



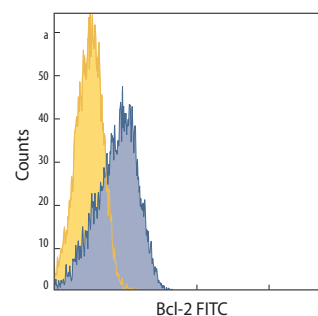
Balb/c thymocytes were kept on ice overnight (left) or cultured overnight at 37°C (right) then stained with JC-1 (cat. no. 65-0851) at 2.5 µg in 1 ml for 10 minutes at room temperature and subsequently stained with Annexin V-APC (cat. no. 88-8007). Annexin positive cells were used for analysis.

### Annexin V-eFluor® 450



Mouse thymocytes were prepared as a single cell suspension and incubated overnight at 37°C in medium (left) or medium with 1 µM dexamethasone (right). Cells were harvested and stained using the Annexin V-eFluor® 450 Apoptosis Detection Kit (cat. no. 88-8006) and Propidium Iodide Staining Solution (cat. no. 00-6990).

### Mouse/Rat Bcl-2



Intracellular staining of mouse splenocytes with FITC anti-mouse/rat Bcl-2 (10C4) (cat. no. 11-6992). Autofluorescence is shown via yellow histogram. Total cells were used for analysis.

2010 | April

#### FEATURING

##### FLOWCYTOMIX™ MULTIPLEX ANALYTE DETECTION KITS

- sAPO-1/Fas (h) **NEW**
- Caspase-3 (h) **NEW**
- Caspase-9 (h) **NEW**
- TNF-α (m) **NEW**

##### ELISA KITS

- Caspase-3 Instant ELISA® (h) **NEW**
- TNF-α (m) Instant ELISA® **NEW**
- sTNFR-II Instant ELISA® (m) **NEW**
- TWEAK Instant ELISA® (h) **NEW**
- APRIL (h)
- Bcl-2 (h)

##### APOPTOSIS DETECTION KITS

- Annexin V-eFluor® 450 **NEW**
- Annexin V-APC
- Annexin V-Biotin
- Annexin V-FITC
- Apo-Direct
- Apo-BrdU

*h=human, m=mouse*

## Apoptosis

Apoptosis Detection Kits		
Product	Cat. No.	Application
Annexin V-APC Apoptosis Detection Kit	8007	FC
Annexin V-Biotin Apoptosis Detection Kit	BMS500BT	FC
Annexin V-eFluor <sup>®</sup> 450 Apoptosis Detection Kit	8006	FC
Annexin V-FITC Apoptosis Detection Kit	8005	FC
Apo-BrdU Apoptosis Detection Kit	6671	FC
Apo-Direct Apoptosis Detection Kit	6611	FC

Human Apoptosis Research Products		
FlowCytomix <sup>™</sup> Multiplex Kits		
Product	Cat. No.	Description
sAPO-1/Fas	BMS80245FF	Simplex Kit for flow cytometry.
Caspase-3	BMS82012FF	Simplex Kit for flow cytometry.
Caspase-9	BMS82025FF	Simplex Kit for flow cytometry.

ELISA Kits			
Product	Cat. No.	Description	Sensitivity
APRIL	BMS2008	ELISA Kit (1 plate)	0.4 pg/ml
	BMS2008TEN	ELISA Kit (10 plates)	0.4 pg/ml
Bcl-2	BMS244/3	ELISA Kit (1 plate)	0.5 ng/ml
	BMS244/3TEN	ELISA Kit (10 plates)	0.5 ng/ml
Caspase-3	BMS2012INST	Instant ELISA <sup>®</sup> (1 plate)	0.12 ng/ml
Caspase-8	BMS2024	ELISA Kit (1 plate)	0.1 ng/ml
	BMS2024TEN	ELISA Kit (10 plates)	0.1 ng/ml
Caspase-9	BMS2025TEN	ELISA Kit (10 plates)	0.4 ng/ml
	BMS263	ELISA Kit (1 plate)	0.05 ng/ml
Cytochrome c	BMS263TEN	ELISA Kit (10 plates)	0.05 ng/ml
	BMS245TEN	ELISA Kit (10 plates)	13.2 pg/ml
sFas (CD95)	BMS260/2TEN	ELISA Kit (10 plates)	0.07 ng/ml
sFasL (CD95 Ligand)	BMS223INST	Instant ELISA <sup>®</sup> (1 plate)	1.65 pg/ml
TRAIL	BMS2004	ELISA Kit (1 plate)	5.4 pg/ml
	BMS2004TEN	ELISA Kit (10 plates)	5.4 pg/ml
TWEAK	BMS2006INST	Instant ELISA <sup>®</sup> (1 plate)	9.6 pg/ml

Recombinant Proteins		
Product	Cat. No.	Description
TRAIL (APO2L)	BMS356	Purified, Recombinant Protein

Antibodies			
Product	Cat. No.	Clone	Formats
Bcl-2	1029	4D7	Biotin, FITC
Bid	9944	1H11	Purified
Caspase-3	6663	31A1067	Purified
Caspase-7	14-9933	20F3	Purified
Caspase-8	14-9934	1H10	Purified
Caspase-9	BMS1041	96-2-2	Purified
Caspase-12	14-6207	--	Polyclonal
	6601	6H2	Purified, FITC
Cytochrome c	6602	7H8	Purified
	6238	DJR3	Purified, Biotin, PE
DcR1	6239	DJR4-1	Purified, Biotin, PE
DR3 (TWEAK)	6603	JD3	Purified, Biotin, PE
DR3 (TWEAK)	6603	JD3	Purified, Biotin, PE
DR4 (TRAIL-R1)	6644	DJR1	Purified, Biotin, PE
DR5 (TRAIL-R2)	9908	DJR2-4	Purified, Biotin, PE
	9909	DJR2-2	Purified
	9907	2A7	Purified, Purified FG

Antibodies (Continued)			
Product	Cat. No.	Clone	Formats
Fas (CD95)	0958	E0S9.1	Purified, Purified FG
	0959	DX2	Purified, Biotin, FITC, Pacific Blue <sup>®</sup> , PE, PE-Cy5
FasL (CD95 Ligand)	9919	NOK-1	Purified, Purified FG, Biotin, PE
	6739	--	Polyclonal
PARP	6766	--	Polyclonal
	6666	C2-10	Purified
PUMA	14-6041	--	Polyclonal
Trail	9927	RIK-2	Purified, Purified FG, Biotin, PE

Mouse Apoptosis Research Products		
FlowCytomix <sup>™</sup> Multiple Analyte Detection Kits		
Product	Cat. No.	Description
TNF-α	BMS8607/2FF	Simplex Kit for flow cytometry
IFN-γ	BMS8606/2FF	Simplex Kit for flow cytometry
IL-1α	BMS8611FF	Simplex Kit for flow cytometry

ELISA Kits			
Product	Cat. No.	Description	Sensitivity
TNF-α	BMS607/2INST	Instant ELISA <sup>®</sup> (1 plate)	2.1 pg/ml
	7324	ELISA Ready-SET-Go! <sup>®</sup> Kit	8 pg/ml
sTNFR-II	BMS6003INST	Instant ELISA <sup>®</sup> (1 plate)	0.6 pg/ml

Antibodies			
Product	Cat. No.	Clone	Formats
Bcl-2	6992	10C4	Purified, FITC
Caspase-1	14-9832	5B10	Purified
Caspase-3	6663	31A1067	Purified
Caspase-8	9934	1H10	Purified
Caspase-11	9935	17D9	Purified, PE
Caspase-12	9950	14F7	Purified
Fas (CD95)	0951	15A7	Purified, Biotin, PE
	FasL (CD95 Ligand)	5912	MFL4
5911		MFL3	Purified, Purified FG, Biotin, PE
Cytochrome c	6739	--	Polyclonal
	6601	6H2	Purified, FITC
	6602	7H8	Purified
DR5	5883	MD5-1	Purified, Purified FG, Biotin, PE
Nur77	5964	357	Purified
	5965	12.14	Purified, PE
PARP	6766	--	Polyclonal
	6666	C2-10	Purified
PUMA	14-6041	--	Polyclonal
Trail	5951	N2B2	Purified, Purified FG, Biotin, PE

Dyes for Cell Biology Function		
Product	Cat. No.	Description
JC-1	65-0851	Mitochondrial Membrane Potential Dye
Propidium Iodide	00-6990	Cell Viability Dye for flow cytometry
7-AAD Staining Solution	00-6993	Cell Viability Dye for flow cytometry

All designated trademarks used are the property of their respective owners.

TOLL FREE 888.999.1371 | TEL 858.642.2058 | FAX 858.642.2046 | contact@eBioscience.com | www.eBioscience.com

Q110020 Apoptosis\_3\_10