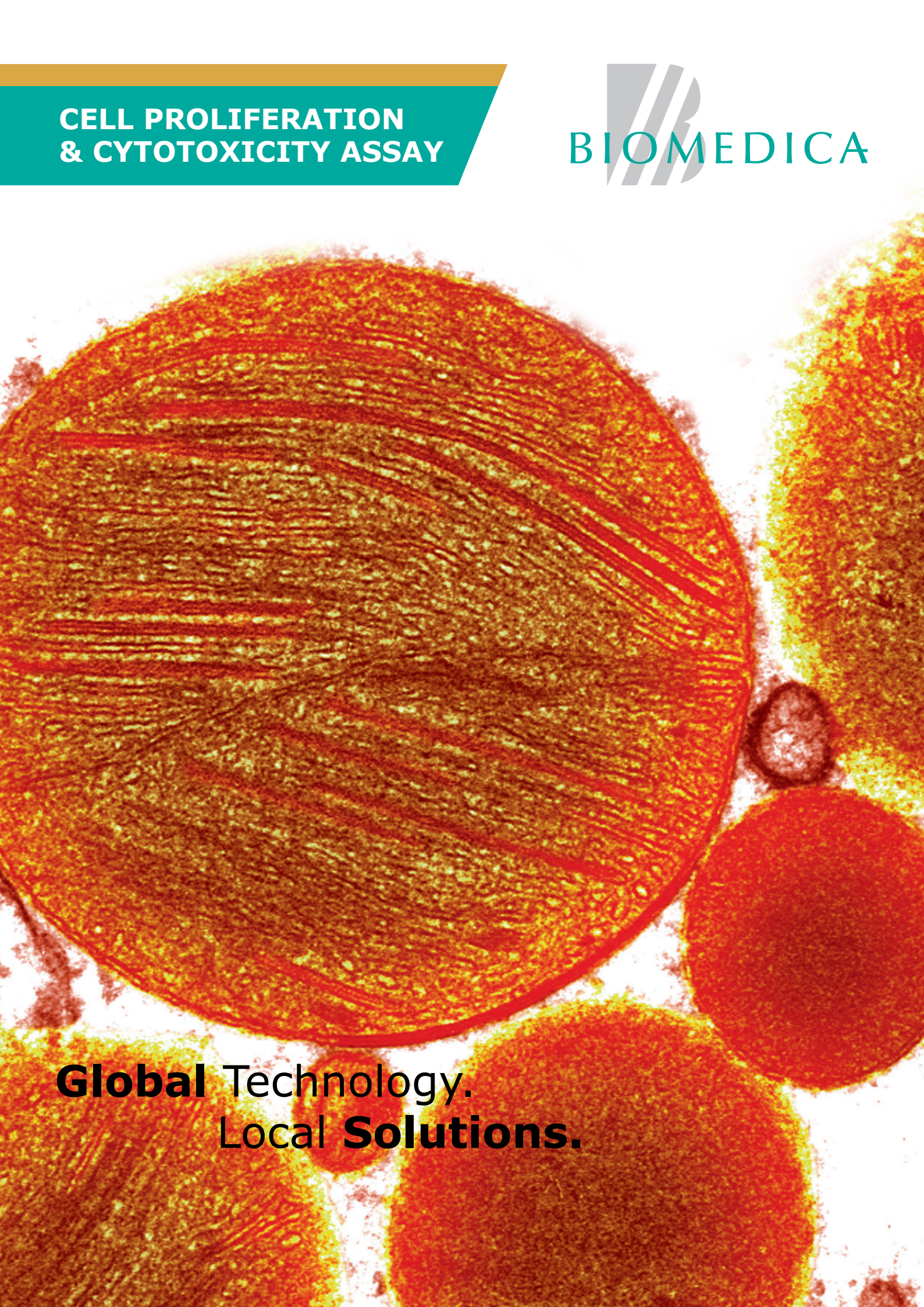
CELL PROLIFERATION & CYTOTOXICITY ASSAY

BIOMEDICA



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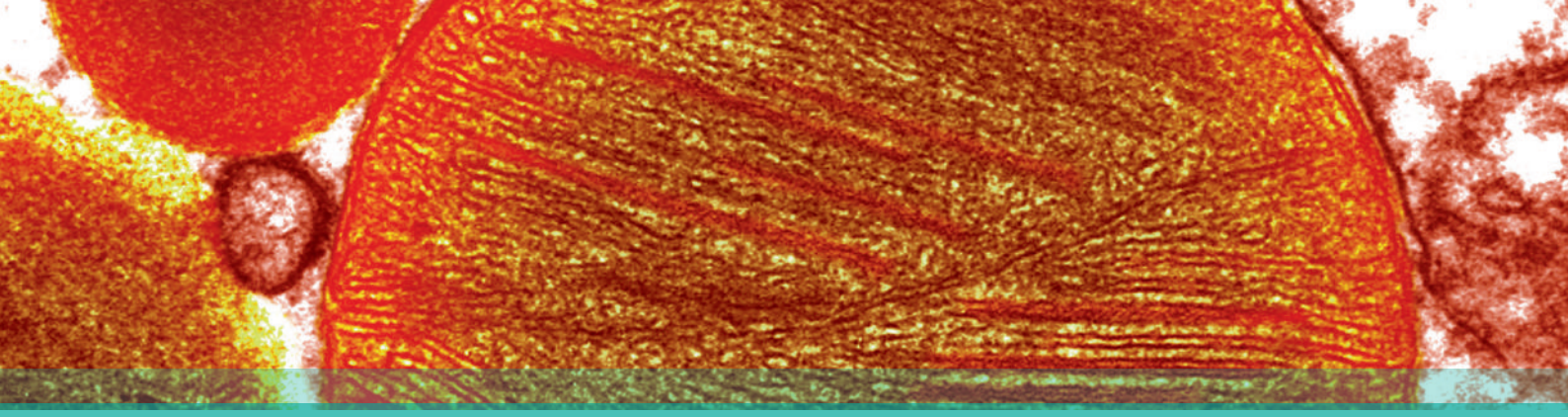

EZ4U – CELL PROLIFERATION AND CYTOTOXICITY ASSAY

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Proliferation assays are widely used in cell biology for the study of growth factors, cytokines, nutrients and for the screening of cytotoxic or chemo-therapeutic agents. The EZ4U cell proliferation and cytotoxicity assay is based on the capability of living cells to reduce slightly coloured or uncoloured tetrazolium salts in the mitochondria into intensely coloured formazan derivates. This water soluble formazan is secreted into the culture medium and can be measured with a standard colorimetric reader.

The EZ4U system is well suited for a variety of biological tests, where cell viability is of importance. It offers advantages over conventional dye or 3H incorporation assays. Due to its soluble end products it is easier and faster to perform than other non-radioactive cell viability assays. Furthermore, because the assay procedure is identical to the thymidine incorporation procedure, no changes in test protocols are necessary. An important benefit is the possibility of an ongoing cultivation after cell number determination and easy to adapt incubation times due to the non-toxic substrate.

METHOD COMPARISON

EZ4U	MTT	THYMIDINE
ADD SUBSTRATE	REMOVE SUPERNATANT	ADD THYMIDINE
⇩	⇩	⇩
INCUBATE 2-5 h	ADD SUBSTRATE	INCUBATE 6-36 h
⇩	⇩	⇩
ELISA READER	INCUBATE 4 h	HARVEST DRY FILTERS
	⇩	⇩
	ADD SOLUBILISER	PLACE FILTERS IN VIALS
	⇩	⇩
	INCUBATE 1 h	ADD SCINTILLATION COCKTAIL
	⇩	⇩
	MIX BY PIPETTING	COUNT IN BETA-COUNTER
	⇩	
	ELISA READER	

FEATURES & BENEFITS

- easy handling
- convenient
- fast
- non-toxic
- non-radioactive
- reliable
- sensitive

ASSAY CHARACTERISTICS

Cat.No.	BI-5000
Method	Reduction of tetrazolium salt to coloured formazan
Sample type	cell culture medium
Sample size	200 µl / test, 10x96 tests
Detection limit	depending on cell lines
Incubation time	2 - 5 h

LITERATURE

Synergistic Anticancer Activity of Arsenic Trioxide with Erlotinib Is Based on Inhibition of EGFR-Mediated DNA Double-Strand Break Repair.
Kushtrim Kryeziu K et al., Mol. Cancer Ther., Jun 2013; 12: 1073-1084.

Autoantigenic targets of B-cell receptors derived from chronic lymphocytic leukemias bind to and induce proliferation of leukemic cells.
Carsten Zwick C et al., Blood, Jun 2013; 121: 4708-4717.

Colon Cancer–Specific Cytochrome P450 2W1 Converts Duocarmycin Analogues into Potent Tumor Cytotoxins.
Sandra Travica S et al., Clin. Cancer Res., Jun 2013; 19: 2952-2961.

MET expression in melanoma correlates with a lymphangiogenic phenotype.
Swoboda A et al., Hum. Mol. Genet., Aug 2012; 21: 3387-3396.

Anticancer Activity of Methyl-Substituted Oxaliplatin Analogs.
Jungwirth U et al., Mol. Pharmacol., May 2012; 81: 719-728.

Heat Shock Protein 90-Sheltered Overexpression of Insulin-Like Growth Factor 1 Receptor Contributes to Malignancy of Thymic Epithelial Tumors.
Breinig M et al., Clin. Cancer Res., Apr 2011; 17: 2237-2249.

Reversal of Multidrug Resistance in Murine Lymphoma Cells by Amphiphilic Dihydropyridine Antioxidant Derivative.
Cindric M et al., Anticancer Res, Oct 2010; 30: 4063-4069.

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