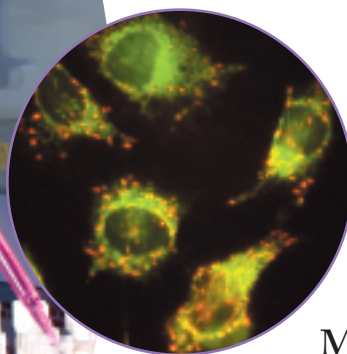


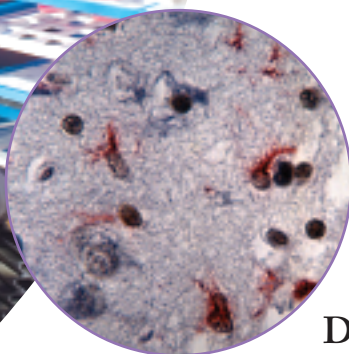
# KITS AND REAGENTS FOR APOPTOSIS DETECTION



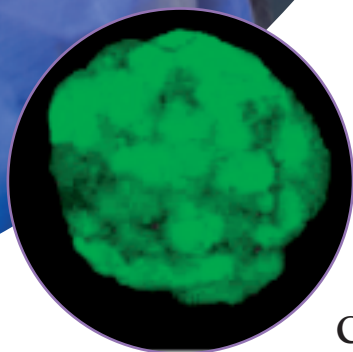
Cell Membrane  
Events



Mitochondrial-  
related Events



DNA  
Fragmentation



Cell Proliferation

**TREVIGEN®**

**APOPTOSIS PRODUCTS**

# CELL MEMBRANE EVENTS

## ORDERING INFORMATION

Description	Size	Catalog No.
Annexin V-FITC Kit	100 samples	4830-01-K
Annexin V-FITC Kit	250 samples	4830-250-K
Annexin V Biotin Kit	100 samples	4835-01-K
Annexin V Biotin Kit	250 samples	4835-250-K

## TACS® Annexin Kits

The TACS® Annexin Kits allow rapid, specific, and quantitative identification of apoptosis in individual cells. Annexin V is a calcium-dependent phospholipid binding protein. During apoptosis, an early and ubiquitous event is the exposure of phosphatidylserine at the cell surface. The annexin V is supplied with an optimized Binding Buffer and propidium iodide. Propidium iodide may be used on unfixed samples to determine the population of cells that have lost membrane integrity, an indication of late apoptosis or necrosis.

## FEATURES

- Fast, sensitive detection of apoptotic cells.
- Includes propidium iodide for discriminating apoptotic and necrotic (or late apoptotic) cells.
- Provides flexibility in fluorophore choice.

## APPLICATIONS

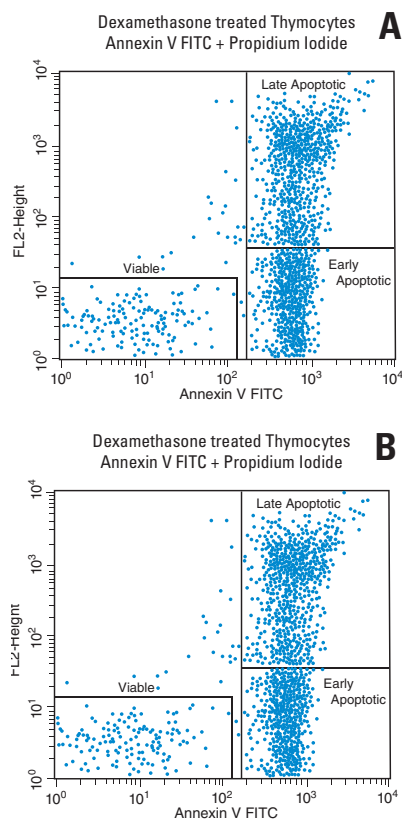
- Flow cytometry
- *In situ* detection of apoptotic cells
- Can be fixed after binding to live cells

## ACCESSORIES

### Streptavidin Conjugate

Trevigen offers a number of streptavidin conjugates to allow flexibility in both *in situ* labeling, and our flow cytometric-based assays (*e.g.* FlowTACS™). Optimal concentrations range from 1:50 dilutions to 1:1000 dilutions, depending upon application. The table below summarizes the characteristics of the fluorescent conjugate.

	Abs. Max	Em. Max	
Streptavidin-AMCA	345 nm	445 nm	"Blue"
Streptavidin-FITC	492 nm	520 nm	"Green"



Analysis of dexamethasone untreated thymocytes (A) and thymocytes treated with 100 nM dexamethasone for 15.5 hrs (B) using TACS® Annexin V-FITC and propidium iodide. The results show a distinct population of cells that have bound Annexin V (lower right quadrant of dot plot). These cells are early apoptotic. Annexin V positive cells that also take up propidium iodide are either late apoptotic or necrotic (upper right quadrant of dot plot). There is also a population negative for both Annexin V and Propidium iodide (lower left quadrant of dot plot). These are normal viable cells.

Analysis courtesy Dr. C. M. Knudson, Howard Hughes Medical Institute, St. Louis, MO.

## RECENT CITATIONS

### ***Cyclophilin A is an inflammatory mediator that promotes atherosclerosis in apolipoprotein E-deficient mice***

Patrizia Nigro, et al.  
J. Exp. Med., Jan 2011; 208: 53 - 66.

### ***UVB-activated Indole-3-acetic acid induces apoptosis of PC-3 prostate cancer cells***

Su Yeon Kim, et al.  
Anticancer Res, Nov 2010; 30: 4607 - 4612.

### ***Involvement of inflammatory chemokines in survival of human monocytes fed with malarial pigment***

Giuliana Giribaldi, et al.  
Infect. Immun., Nov 2010; 78: 4912 - 4921.

### ***Phosphorylation of CLK2 at Serine 34 and Threonine 127 by AKT controls cell survival after ionizing radiation***

Seon Young Nam, et al.  
J. Biol. Chem., Oct 2010; 285: 31157 - 31163.

### ***Thymic Stromal Lymphopoietin induces chemotactic and prosurvival effects in eosinophils: implications in allergic inflammation***

Chun K. Wong, et al.  
Am. J. Respir. Cell Mol. Biol., Sep 2010; 43: 305 - 315.

# MITOCHONDRIAL-RELATED EVENTS

## ORDERING INFORMATION

Description	Size	Catalog No.
DePsipher™ Kit	100 tests	6300-100-K
MitoShift™ Mitochondrial Potential Assay	100 tests	6305-100-K
HT Universal Colorimetric PARP/Apoptosis Assay Kit	96 tests	4684-096-K
HT Universal Chemiluminescent PARP/Apoptosis Assay Kit	96 tests	4685-096-K

## DePsipher™ Mitochondrial Potential Assay

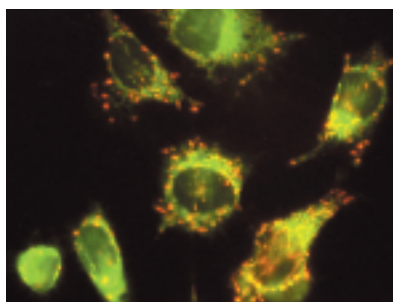
The DePsipher™ Kit uses a unique cationic dye (5,5',6,6'-tetrachloro-1,1',3,3'-tetraethylbenzimidazolyl-carbocyanine iodide) to indicate the loss of  $\Delta\Psi_m$ . The dye readily enters cells and fluoresces brightly red in its multimeric form within healthy mitochondria. In apoptotic cells, the mitochondrial membrane potential collapses, and the DePsipher™ reagent cannot accumulate within the mitochondria. In these cells, DePsipher™ returns to its green fluorescent monomeric form. Apoptotic cells, showing primarily green fluorescence, are thus easily differentiated from healthy cells which show red fluorescence. The aggregate red form has absorption/emission maxima of 585/590 nm, and the green monomeric form has absorption/emission maxima of 510/527 nm. Both apoptotic and healthy cells can be visualized simultaneously by epifluorescence microscopy using a wide band-pass filter.

## FEATURES

- Simple. Just add DePsipher™ reagent to media or reaction buffer.
- Fast. Takes only 20 minutes.

## APPLICATIONS

- Flow cytometry
- Epifluorescence microscopy
- Confocal microscopy



Identification of apoptotic cells using DePsipher™. INT407 human cells were treated with 25  $\mu$ M etoposide for 8 hours, and treated with the DePsipher™ reagent in Reaction Buffer for 30 minutes prior to visualization. Healthy cells (containing red aggregates) can be differentiated from apoptotic cells (containing mostly green monomers).

## MitoShift™ Mitochondrial Potential Assay

In non-apoptotic, healthy cells, cellular energy produced during mitochondrial respiration is maintained as an electrochemical gradient that constitutes a high mitochondrial transmembrane potential ( $\Delta\Psi_m$ high). This membrane potential enables the cell to drive the synthesis of ATP and its disruption is associated with uncoupling of oxidative phosphorylation, generation of superoxide free radicals, and release of mitochondrial matrix-associated  $Ca^{2+}$  into the cytosol. Additionally, leakage of key apoptotic mitochondrial proteins such as cytochrome C, SMAC/Diablo and apoptosis inducing factor (AIF) have been associated with loss of  $\Delta\Psi_m$ . Decreases in membrane potential have been used as a characteristic apoptotic marker.

## Epifluorescence Microscopy

MitoShift™ can also be used in conventional fluorescence microscopy. The dye appears associated with mitochondria in healthy cells, generally in the perinuclear area as red-orange, punctate fluorescence. In cells experiencing general mitochondrial depolarization, an efflux of the dye, from the mitochondria to the cytosol, results in brightly orange and diffused fluorescence.

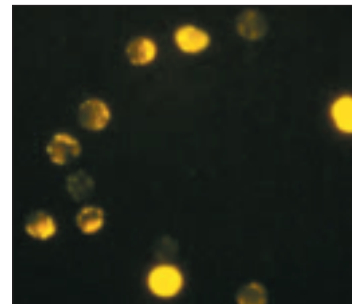
## Flow Cytometry

It has been reported that the high dye concentration inside the mitochondria leads to a quenching of the fluorescence that is alleviated when the dye exits the organelle compartment. Early apoptotic cells will often be stained according to this pattern. In late apoptotic cells or cells that have lost their cellular membrane integrity, the dye is released into the medium and fluorescence is lost. This feature allows the use of MitoShift™ with flow cytometry to discriminate necrotic or late apoptotic cells from healthy cells.

## Confocal Microscopy

MitoShift™ allows scientists to evaluate shifts in the  $\Delta\Psi_m$  at the single mitochondrion level, by confocal microscopy. As  $\Delta\Psi_m$  collapses, there is an outward flow of the dye along the altered pH gradient, leaving the mitochondria fluorescence free.

WEHI 7.1 mouse lymphocytes at different cellular stages were stained with MitoShift™ and observed by fluorescence microscopy (Ex: 488 Em: 565nm). Healthy cells appear with punctate perinuclear fluorescence located in the mitochondria; cells with depolarized mitochondria stain bright orange in the cytoplasm; necrotic or late apoptotic cells do not emit any fluorescence.



# MITOCHONDRIAL-RELATED EVENTS

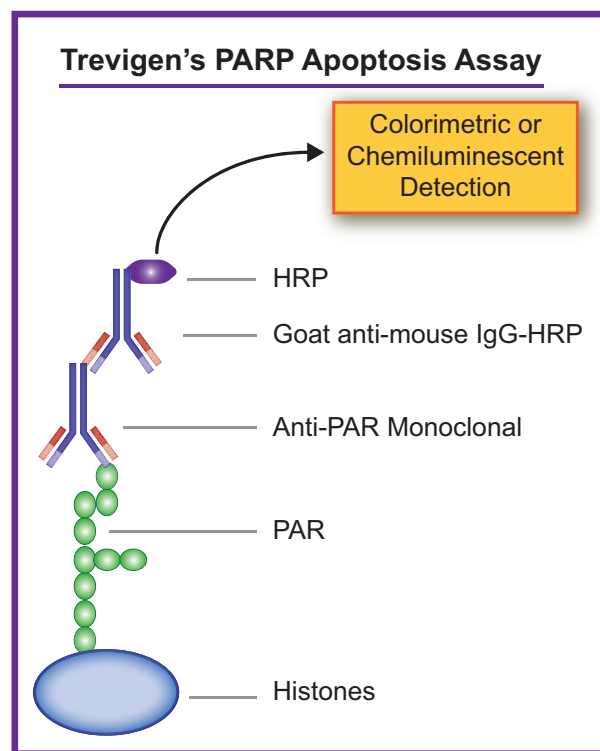
## PARP/Apoptosis Assay Kits

*for the semi-quantitative measurement of PARP activity*

The HT PARP/Apoptosis Assay is ideal for measuring the activity of PARP in cell extracts before and during apoptosis. This ELISA semi-quantitatively detects PAR deposited onto immobilized histone proteins in a 96-well format. An anti-PAR monoclonal antibody, goat anti-mouse IgG-HRP conjugate, and HRP substrate are used to generate a signal. Thus, signals correlate with PARP activity. Etoposide is a topoisomerase II inhibitor that stabilizes this enzyme after it cleaves DNA. It is included as a control apoptosis inducer.

### FEATURES

- Colorimetric or Chemiluminescent readout.
- 96 well format.
- Highly sensitive – detects 0.1 mU PARP ~500 cells.
- Dynamic range between 0.1 to 10 mU PARP.
- Requires 10-100 ng extract for detection.
- Assay Time ~ 3 hrs.
- Control included.



### RECENT DEPSIPHER CITATIONS

***Cyclophilin A is an inflammatory mediator that promotes atherosclerosis in apolipoprotein E-deficient mice***

Patrizia Nigro, et al.  
J. Exp. Med., Jan 2011; 208: 53 - 66.

***Plasma membrane Ca<sup>2+</sup>-ATPase overexpression depletes both mitochondrial and endoplasmic reticulum Ca<sup>2+</sup> stores and triggers apoptosis in insulin-secreting BRIN-BD11 cells***

Lin Jiang, et al.  
J. Biol. Chem., Oct 2010; 285: 30634 - 30643.

***The endoplasmic reticulum stress-C/EBP homologous protein pathway-mediated apoptosis in macrophages contributes to the instability of atherosclerotic plaques***

Hiroto Tsukano, et al.  
Arterioscler Thromb Vasc Biol, Oct 2010; 30: 1925 - 1932.

***Bleomycin induces the extrinsic apoptotic pathway in pulmonary endothelial cells***

Ognoon Mungunsukh, et al.  
Am J Physiol Lung Cell Mol Physiol, May 2010; 298: L696 - L703.

***Molecular mechanisms of the LPS-induced non-apoptotic ER stress-CHOP pathway***

Yoichiro Nakayama, et al.  
J. Biochem., Apr 2010; 147: 471 - 483.

### RECENT UNIVERSAL PARP CITATIONS

***Contextual synthetic lethality of cancer cell kill based on the tumor microenvironment***

Norman Chan, et al.  
Cancer Res., Oct 2010; 70: 8045 - 8054.

***Poly(ADP-Ribose) Polymerase is hyperactivated in homologous recombination-defective cells***

Ponnari Gottipati, et al.  
Cancer Res., Jul 2010; 70: 5389 - 5398.

***Mutational analysis of the Poly(ADP-Ribosyl)ation sites of the transcription factor CTCF provides an insight into the mechanism of its regulation by Poly(ADP-Ribosyl)ation***

Dawn Farrar, et al.  
Mol. Cell. Biol., Mar 2010; 30: 1199 - 1216.

***Oral Poly(ADP-Ribose) Polymerase-1 inhibitor BSI-401 has antitumor activity and synergises with Oxaliplatin against pancreatic cancer, preventing acute neurotoxicity***

Davide Melisi, et al.  
Clinical Cancer Res., Oct 2009; 15: 6367 - 6377.

# DNA FRAGMENTATION

## ORDERING INFORMATION

Description	Size	Catalog No.
TACS•XL® Basic Kit	30 samples	4828-30-K
TACS•XL® Blue Label Kit	30 samples	4828-30-BK
TACS•XL® DAB Kit	30 samples	4828-30-DK
TACS•XL® Replenisher Kit	30 samples	4828-30-R
TACS® 2 TdT Core Kit	30 samples	4810-30-CK
TACS® 2 TdT DAB Kit	30 samples	4810-30-K
TACS® 2 TdT Blue Label Kit	30 samples	4811-30-K
TACS® 2 TdT Fluorescein Kit	30 samples	4812-30-K
CardioTACS™ Kit	30 samples	4827-30-K
DermaTACS™ Kit	30 samples	4829-30-K
NeuroTACS™ II Kit	30 samples	4823-30-K
TumorTACS™ Kit	30 samples	4815-30-K
VasoTACS™ Kit	30 samples	4826-30-K
TiterTACS™ Colorimetric	96 wells	4822-96-K
FlowTACS™ Kit	60 tests	4817-60-K
Ethidium Bromide DNA Laddering Kit	20 wells	4850-20-ET
Tissue Extraction Reagents	20 wells	4859-20-K

## TACS•XL® *In situ* Apoptosis Detection Kits

The TACS•XL® Kit is based on incorporation of bromodeoxyuridine (BrdU) at the 3'OH ends of the DNA fragments that are formed during apoptosis. The detection system utilizes a biotin conjugated anti-BrdU antibody and streptavidin-horseradish peroxidase. The combination of antibody specificity with the signal enhancing properties of biotin streptavidin results in precise cellular labeling and the highest signal-to-noise ratio observed in competitive testing.

### FEATURES

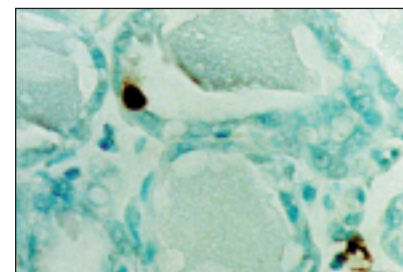
- High signal-to-noise ratio generates stronger signal with less background.
- Less sensitive to protease-induced false positive labeling than digoxigenin or biotin-based kits.
- Complete kit provides either DAB or TACS Blue Label™ detection options.
- Includes exclusive Cytonin™ permeabilization reagent.
- Includes TACS-Nuclease™ control reagents.
- Readily adapted for fluorescence read-out.

## TACS® 2 TdT *In situ* Apoptosis Detection Kits

TACS® 2 TdT Kits utilize Trevigen's unique cation optimization system to enhance labeling within particular tissues. The TACS® 2 TdT Kits also employ a proprietary labeling buffer that contains no toxic components. A highly purified form of the TdT enzyme is included for the enzymatic incorporation of biotinylated nucleotides. Biotin labeling is detected using streptavidin-horseradish peroxidase, and colorimetric substrates diaminobenzidine (DAB), or TACS Blue Label™. For fluorescent detection, a fluorescein conjugate of streptavidin is used and visualized by epifluorescence microscopy.

### APPLICATIONS

- *In situ* detection of apoptosis (by TUNEL) in fixed frozen, paraffin embedded, or plastic embedded cells and tissues.
- Light microscopy
- Fluorescence microscopy
- Flow cytometry



*Detection of apoptosis in post-weaning mouse breast tissue using the TACS® 2 TdT DAB kit. Tissue sections were collected and fixed in 10% neutral buffered formalin, embedded in paraffin and sectioned at 5 µM. Deparaffinized and rehydrated sections were processed following the TACS® 2 protocol.*

### ACCESSORIES

#### Streptavidin Conjugate

Trevigen offers a number of streptavidin conjugates to allow flexibility in both *in situ* labeling, and our flow cytometric-based assays (*e.g.* FlowTACS™). Optimal concentrations range from 1:50 dilutions to 1:1000 dilutions, depending upon application. The table below summarizes the characteristics of the fluorescent conjugate.

	Abs. Max	Em. Max	
Streptavidin-AMCA	345 nm	445 nm	"Blue"
Streptavidin-FITC	492 nm	520 nm	"Green"

# DNA FRAGMENTATION

## Specialty *In Situ* Apoptosis Detection

Through our own extensive in-house testing and the information we obtained from cells and tissues processed through our labeling services, Trevigen has developed specialty kits that are qualified and optimized for use with specific tissues. We removed the "guesswork" and the time-consuming optimization that may be required for the first time user. We provide tailor-made kits for apoptosis detection in specific cell and tissue types. These include neuronal cells and tissues, tumor tissues, cardiac-derived samples, vascular-derived samples and skin. These kits provide the appropriate permeabilization reagent for the tissue under investigation with recommendations on incubation times and temperatures to ensure that the labeling enzyme has optimal access to nuclear DNA. Each kit provides a preselected cation for optimal labeling of free apoptotic DNA ends, and minimized labeling of necrotic cells. The method for visualization of the labeled cells provides a low background and ease of interpretation in the tissue selected, and the counterstaining reagents have been prequalified to ensure nominal overlap between labeled and unlabeled cells, and for interpretation of morphology in the fully processed sample.

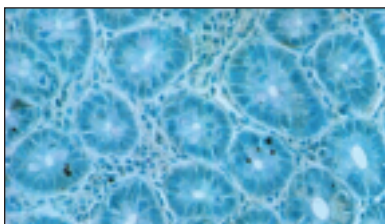
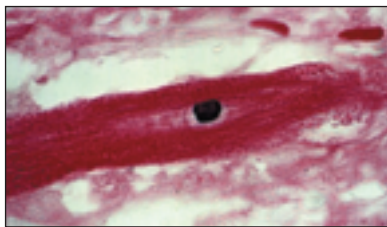
## TISSUE SPECIFIC DETECTION KITS

- CardioTACS™
- TumorTACS™
- VasoTACS™
- NeuroTACS™ II
- DermaTACS™

## APPLICATION SPECIFIC DETECTION KITS

- TiterTACS™
- FlowTACS™ II

*Apoptotic rat cardiac myocyte labeled using the CardioTACS™ Kit. Rat heart tissue was fixed in 4% paraformaldehyde overnight followed by paraffin embedding. Five micron sections were prepared and placed onto glass microscope slides. The sample was processed following the CardioTACS™ Kit protocol. Photo courtesy Dr. J. Zhang, FDA.*



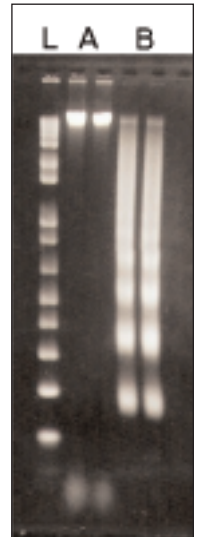
*Apoptotic cells within mouse mammary tumor identified using the TumorTACS™ kit. Mammary tumor was fixed in 4% paraformaldehyde overnight followed by paraffin embedding. Five micron sections were prepared and placed onto glass microscope slides. The sample was processed following the TumorTACS™ kit protocol.*

## TACS® Apoptotic DNA Laddering Kit

The TACS® Apoptotic DNA Laddering Kit is used to detect and estimate the level of internucleosomal DNA fragmentation that occurs during apoptosis. Evidence of DNA laddering supports other experimental data including positive Annexin V staining, PARP cleavage and morphological identification methods to verify that apoptosis occurred. The kit contains all reagents necessary to isolate, label, and detect DNA.

For those researchers investigating apoptosis in tissues, a supplemental Tissue Extraction Kit is available. This kit provides the reagents necessary to prepare tissues for DNA extraction.

*DNA Laddering kit with DNA from control and apoptotic cells. DNA was isolated from WEHI cells that were untreated (A) or treated 50 μM Etoposide overnight (B). Two μg of DNA was displayed on a 1.5% TreviGel™ 500 gel containing ethidium bromide and subjected to electrophoresis at 8 V/cm for 1 hour.*



## RECENT CITATIONS

### ***Role of the Rho pathway in regulating valvular interstitial cell phenotype and nodule formation***

Xiaoxiao Gu and Kristyn S. Masters.  
Am J Physiol Heart Circ Physiol, Feb 2011; 300: H448 - H458.

### ***Bacterial lipoprotein TLR2 agonists broadly modulate endothelial function and coagulation pathways in vitro and in vivo***

Hae-Sook Shin, et al.  
J. Immunol., Jan 2011; 186: 1119 - 1130.

### ***Eicosapentaenoic acid restores diabetic tubular injury through regulating oxidative stress and mitochondrial apoptosis***

Sekiko Taneda, et al.  
Am J Physiol Renal Physiol, Dec 2010; 299: F1451 - F1461.

### ***B Cell subsets contribute to renal injury and renal protection after ischemia/reperfusion***

Brandon Renner, et al.  
J. Immunol., Oct 2010; 185: 4393 - 4400.

### ***Downregulation of microRNA-29 by antisense inhibitors and a PPAR-agonist protects against myocardial ischaemia-reperfusion injury***

Yumei Ye, et al.  
Cardiovasc Res, Aug 2010; 87: 535 - 544.

# CELL PROLIFERATION

## ORDERING INFORMATION

Description	Size	Catalog No.
MTT Cell Proliferation Assay	2500 wells	4890-025-K
MTT Cell Proliferation Assay	5000 wells	4890-050-K
XTT Cell Proliferation Assay Kit	2500 wells	4891-025-K
Calcein AM Cell Viability Assay Kit	1000 wells	4892-010-K

## TACS® MTT Cell Proliferation Assay

The TACS® MTT Cell Proliferation Assay (MTT-CPA) is a sensitive kit for the measurement of cell proliferation based upon the reduction of the tetrazolium salt 3,[4,5-dimethylthiazol-2-yl]-2,5-diphenyltetrazolium bromide (MTT). Changes in cell proliferative activity caused by trophic factors, growth inhibitors, or inducers and inhibitors of apoptosis may be quantified using the MTT-CPA. MTT is reduced to an insoluble formazan dye by mitochondrial enzymes associated with metabolic activity. The reduction of MTT is primarily due to glycolytic activity within the cell and is dependent upon the presence of NADH and NADPH.

Common methods for determining cell viability depend upon membrane integrity (*e.g.* trypan blue exclusion), or incorporation of nucleotides during cell proliferation (*e.g.* BrdU or 3H-thymidine). These methods are limited by the impracticality of processing large numbers of samples, or by the requirement for handling hazardous materials. The MTT Assay, in contrast, provides a rapid and versatile method for assessing cell viability.

The assay is used to measure changes in cell proliferation. In actively proliferating cells, an increase in MTT conversion is spectrophotometrically quantified.

Comparison of this value to an untreated control provides a relative increase in cellular proliferative activity. Conversely, in cells that are undergoing apoptosis, MTT reduction decreases, reflecting the loss of cell viability.

### FEATURES

- Convenient. Stabilized formulation is stored in your refrigerator and does not require thawing before use.
- Non-isotopic. Assay for cell proliferation, cytotoxicity, and viability does not require isotopic reagents.
- Fast. High throughput microplate format.
- Flexible. The reaction product can be visualized directly by microscopy to evaluate cell to cell reactivity, or solubilized and evaluated by microplate reading.

### APPLICATIONS

- Cell proliferation assays
- Apoptosis screening
- Cytotoxicity analysis

## TACS® XTT Cell Proliferation Assay

The use of tetrazolium salts, including XTT (2,3-Bis (2-methoxy-4-nitro-5-sulfophenyl)-2Htetrazolium-5-carboxanilide), to assay cell proliferation, cell viability, and/or cytotoxicity is a widespread, established practice. The procedures avoid radioactivity, allow for rapid determination in microplates, and give reproducible and sensitive results. Cleavage of the tetrazolium salt to formazan occurs via the succinate-tetrazolium reductase system in the mitochondria of metabolically active cells. The reaction is attributed mainly to mitochondrial enzymes and electron carriers, but a number of other non-mitochondrial enzymes have been implicated.

XTT, a yellow tetrazolium salt, is cleaved to a soluble orange formazan dye, which can be measured by absorbance at 490 (or 450) nm in a microplate reader. Efficient reduction of XTT requires an electron coupling reagent. This kit includes both XTT and the electron coupling reagent for a convenient and simple assay.

### FEATURES

- Sensitive.
- No radioactivity.
- Rapid (no solubilization step as in an MTT assay).
- Ideal for high throughput assays (no washing or other steps that can cause cell loss and variability).

### APPLICATIONS

- Cell proliferation assays
- Apoptosis screening
- Cytotoxicity analysis

### RECENT CITATIONS

#### ***Neogenin, a receptor for bone morphogenetic proteins***

Meiko Hagihara, et al.  
J. Biol. Chem., Feb 2011; 286: 5157 - 5165.

#### ***Loss of PTEN permits CXCR4-mediated tumorigenesis through ERK1/2 in prostate cancer cells***

Mahandranauth A. Chetram, et al.  
Mol. Cancer Res., Jan 2011; 9: 90 - 102.

#### ***A Vitamin D receptor-alkylating derivative of 1,25-Dihydroxyvitamin D3 inhibits growth of human kidney cancer cells and suppresses tumor growth***

James R. Lambert, et al.  
Cancer Prevention Research, Dec 2010; 3: 1596 - 1607.

#### ***Human-derived probiotic Lactobacillus reuteri strains differentially reduce intestinal inflammation***

Yuying Liu, et al.  
Am J Physiol Gastrointest Liver Physiol, Nov 2010; 299: G1087 - G1096.

# CELL PROLIFERATION

## Calcein AM Cell Viability Kit

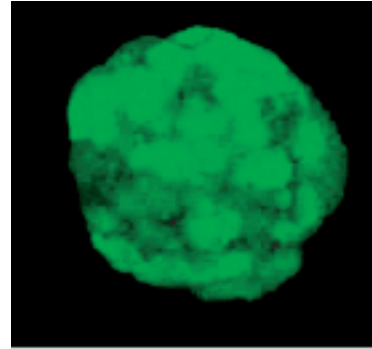
The Calcein AM Kit provides a simple, rapid, and accurate method to measure cell viability and/or cytotoxicity. Calcein AM is a non-fluorescent, hydrophilic compound that easily permeates intact, live cells. The hydrolysis of Calcein AM by intracellular esterases produces calcein, a hydrophilic, strongly fluorescent compound that is well retained in the cell cytoplasm. Cells grown in black-walled plates can be stained and quantified in less than two hours.

### FEATURES

- Suitable for proliferating and non-proliferating cells.
- Ideal for both suspension and adherent cells.
- Non-radioactive microplate.
- Rapid (no solubilization step as in an MTT assay).
- Ideal for high throughput assays.

### APPLICATIONS

- Cytotoxicity analysis
- Cell viability assay
- Cell staining



The fluorescent dyes used for quantitatively determining viable cells (Calcein AM) may also be used for analyzing structural formation using fluorescent microscopy. The figure reveals formation of acinar structures by PC-3 prostatic adenocarcinoma cells grown in vitro on 3-D Culture Matrix™ Basement Membrane Extract using: (A) Calcein AM. Trevigen has also developed a colorimetric assay for cell staining.

## Apoptosis Antibody Selection Guide

						APPLICATIONS		
Catalog No.	Description	Clone	Size	Specificity	Subtype	IHC	WB	IP
<b>APOPTOSIS</b>								
2280-MC-100	Anti-Bax	YTH-5B7	100 µg	M	IgG1	●*	●	●
2281-MC-100	Anti-Bax	YTH-6A7	100 µg	H, M, R	IgG1	●*	●	●
2282-MC-100	Anti-Bax	YTH-2D2	100 µg	H	IgG1	●*	●	●
2290-MC-100	Anti-Bcl-2	YTH-10C4	100 µg	M, R	IgG1		●	●
2291-MC-100	Anti-Bcl-2	YTH-8C8	100 µg	H	IgG1		●	●
2300-MC-100	Anti-Bcl-XL	YTH-2H12	100 µg	H, M, R	IgG2a	●	●	●
2305-PC-020	Anti-Cleaved Caspase-3	Polyclonal (AP)	20 µl	H, M	n/a	●	●	●
2305-PC-100	Anti-Cleaved Caspase-3	Polyclonal (AP)	100 µl	H, M	n/a	●	●	●
6361-PC-100**	Anti-H/M PBR	Polyclonal	100 µl	H, M, R	n/a	●	●	
6362-PC-100**	Anti-M PBR	Polyclonal	100 µl	M	n/a	●	●	
<b>CONTROL</b>								
2275-PC-100	Anti-G3PDH	Polyclonal	100 µl	H, M	n/a		●	●
2275-PC-020	Anti-G3PDH	Polyclonal	20 µl	H, M	n/a		●	●

AP = Affinity Purified

IHC = Immunohistochemistry; WB = Western Blot; IP = Immunoprecipitation;

Mn = Mammalian; H = Human; M = Mouse; R = Rat; Y = Yeast;

D = *D. melanogaster*; X = *X. laevis*;

n/a = not applicable

† Data may not yet be available for each antibody for all applications for all antibodies.

\* In a cell system that overexpressed BAX protein

\*\* Control protein available

## ABOUT US

Trevigen, Inc. is dedicated to serve the research community with the highest quality products for studies involving the characterization of cancer cell behavior, apoptosis, DNA damage, and genomic instability.

1.800.873.8443

**TREVIGEN**®

www.trevigen.com