

# Plate-Based Assay Methods for the Assessment of Cellular Health

## Featured Product Resources

| Product                                                                  | Cat # | Protocol | Promega Resource                                                                          | Example citation                                                                                                                                                                                                                           |
|--------------------------------------------------------------------------|-------|----------|-------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CellTiter-Fluor™ Cell Viability Assay                                    | G6080 | TB371    | Multiplexing Cell-Based Assays: Get More Biologically Relevant Data                       | Ying, W., et al. (2012) Ganetespib, a unique triazolone-containing Hsp90 inhibitor, exhibits potent antitumor activity and a superior safety profile for cancer therapy. <i>Mol. Cancer Ther.</i> <b>11</b> , 475-484. Pub Med ID:22144665 |
| CytoTox-Fluor™ Cytotoxicity Assay                                        | G9260 | TB350    |                                                                                           | Matsuzaki, S., et al. (2012) Impact of intraperitoneal pressure of a CO <sub>2</sub> pneumoperitoneum on the surgical peritoneal environment. <i>Hum. Reprod.</i> Mar 27. Epub ahead of print. PubMed ID: 22454461                         |
| MultiTox-Fluor Multiplex Cytotoxicity Assay                              | G9200 | TB348    | Using protease biomarkers to measure viability and cytotoxicity                           | Kim, W., et al. (2012) Cannabinoids induce pancreatic $\beta$ -cell death by directly inhibiting insulin receptor activation. <i>Sci. Signal.</i> <b>5</b> , ra23. PubMed ID: 22434934                                                     |
| Caspase-Glo® 3/7 Assay                                                   | G8091 | TB323    | Correlation of Caspase Activity and ChemoResponse in Epithelial Ovarian Cancer Cell Lines | Garimella, S.V., et al. (2012) WEE1 inhibition sensitizes basal breast cancer cells to TRAIL-induced apoptosis. <i>Mol. Cancer Res.</i> <b>10</b> , 75-85. PubMed ID:22112940                                                              |
| ApoTox-Glo™ Triplex Assay                                                | G6320 | TM322    | Cell health using an iPS cardiomyocyte cell model.                                        | Goldberg, M.S. and Sharp, P.A. (2012) Pyruvate kinase M2-specific siRNA induces apoptosis and tumor regression. <i>J. Exp. Med.</i> <b>209</b> , 217-224. PubMed ID: 22271574                                                              |
| Links in this section go to <a href="http://promega.com">promega.com</a> |       |          | Links in this section go to <a href="http://pubmed.gov">pubmed.gov</a>                    |                                                                                                                                                                                                                                            |

### Product not yet released

**CellTox™ Green** – A non-toxic DNA binding dye for measuring dead cells.

Please ask your local Promega representative to notify you when the product is available in the online catalog.

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## Product Resources

### **Promega External Publications:**

Riss, T.L., Moravec, R.A. and Niles, A.L. (2011) Cytotoxicity testing: Measuring viable cells, dead cells, and detecting mechanism of cell death. *Methods Mol. Biol.* **740**, 103-14.  
PubMed ID: 21468972

Niles, A.L., Moravec, R.A. and Riss, T.L. (2009) In vitro viability and cytotoxicity testing and same-well multiparametric combinations for high-throughput screening. *Curr. Chem. Genomics* **3**, 33-41.  
PubMed ID: 20161834

Niles, A.L., Moravec, R.A. and Riss, T.L. (2008) Multiplex caspase activity and cytotoxicity assays. *Methods Mol. Biol.* **414**, 151-162.  
PubMed ID: 18175818

Niles, A.L., et al. (2007) A homogeneous assay to measure live and dead cells in the same sample by detecting different protease markers. *Anal. Biochem.* **366**, 197-206.  
PubMed ID: 17512890

### **Promega Publications:**

Arduengo, M. **Considerations for successful cell based assays I: Choosing your cells.**  
Promega Connections Blog Web site.  
<http://promega.wordpress.com/2011/12/05/considerations-for-successful-cell-based-assays-i-choosing-your-cells/>  
Updated 2011. Accessed April 2012.

Arduengo, M. **Considerations for successful cell based assays II: Cell culture conditions.**  
Promega Connections Blog Web site.  
<http://promega.wordpress.com/2012/01/11/considerations-for-successful-cell-based-assays-ii-cell-culture-conditions/>  
Updated 2012. Accessed April 2012.

Sundquist, T., Moravec, R., Nile, A., O'Brien, M and Riss, T. **Timing Your Apoptosis Assay.**  
Promega Corporation Web site.  
<http://www.promega.com/resources/articles/pubhub/cellnotes/timing-your-apoptosis-assays/> Updated 2006. Accessed April, 2012.

Zakowicz, H., Schagat, T., Yoder, D. and Niles, A. **Measuring Cell Health and Viability Sequentially by Same-Well Multiplexing using the GloMax® Multi Detection System.**  
Promega Corporation Web site.  
<http://www.promega.com/resources/articles/pubhub/promega-notes-2008/measuring-cell-health-and-viability-sequentially-by-same-well-multiplexing-with-glomax-multi-system/> Updated 2008. Accessed April 2012.

# Questions?

## Technical Services

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[www.promega.com/support](http://www.promega.com/support)

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