



## Trusted Cell-Based Assays:

- ✓ Cell Viability
- ✓ Cytotoxicity
- ✓ Apoptosis
- ✓ Oxidative Stress
- ✓ Energy Metabolism

For more information:



## Cell Viability Assays

RealTime-Glo™ MT Cell Viability Assay <i>Monitor cell health continuously over 72 hours with this "zero-step" non-lytic viability assay. Based on reduction of a pro-substrate within the cell diffusing out and reacting with NanoLuc® Luciferase. Can be multiplexed ahead of many lytic fluorescent and luminescent assays.</i>	100 rxn	G9711
	1,000 rxn*	G9713
CellTiter-Glo® 3D Assay <i>Re-designed with greater lytic power to make the first viability ATP-based assay truly designed for work with 3D cultures.</i>	10ml	G9681
	100ml*	G9683
CellTiter-Glo® 2.0 Assay <i>Same great performance of classic CellTiter-Glo®, now provided as a single reagent stable at 4°C (20 weeks) or 22°C (7 days), simplifying set-up.</i>	10ml	G9241
	100ml*	G9242
CellTiter-Glo® Luminescent Cell Viability Assay <i>Quick 10 minute ATP assay with sensitivity to the 10s of cells. Scalable from 96- to 1536-well plates.</i>	10ml	G7570
	100ml*	G7572
CellTiter-Fluor™ Cell Viability Assay <i>Non-lytic fluorescent (AFC) assay measuring "live cell" protease with sensitivity to the 100s of cells. Protocols for 96- and 384-well formats included. Multiplexes well with luminescent assays.</i>	10ml	G6080
	5 x 10ml*	G6081
CellTiter-Blue® Cell Viability Assay <i>Non-lytic fluorescent (resazurin/resorufin) assay measuring reducing potential within cell with sensitivity to the 100s of cells. Protocols for 96- and 384-well formats included.</i>	20ml	G8080
	100ml	G8081

## Cytotoxicity Assays

LDH-Glo™ Cytotoxicity Assay <i>Luminescent detection of LDH release assay. Extremely sensitive assay requires only 2-5µl of culture medium per time point allowing collection of multiple time points per well for semi-kinetic assay.</i>	10ml	J2380
	50ml	J2381
CytoTox-Glo™ Cytotoxicity Assay <i>Luminescent protease assay measures "dead cell" protease leaked into culture media from cells with compromised membranes. Protocols for 96- and 384-well assays included. Multiplexes well with luminescent assays.</i>	10ml	G9290
	5 x 10ml*	G9291
CellTox™ Green Cytotoxicity Assay <i>Dye-based, non-toxic membrane integrity assay that labels DNA in cells with compromised membranes. Add at plating, dosing or wait and add at the end of your incubation. 1000x dye solution scales from 96- to 1,536-well plates. Multiplexes well with luminescent assays.</i>	10ml	G8741
	50ml*	G8742
CytoTox-Fluor™ Cytotoxicity Assay <i>Fluorescent protease assay measures "dead cell" protease leaked into culture media from cells with compromised membranes. Protocols for 96- and 384-well assays included.</i>	10ml	G9260
	2 x 10ml*	G9261
CytoTox-ONE™ Membrane Integrity Assay <i>Non-lytic fluorescent (resazurin/resorufin) assay measures lactate dehydrogenase (LDH) leaked into culture media from cells with compromised membranes. Protocols for 96- and 384-well formats included.</i>	200-800 assays	G7890
	1,000-4,000 assays	G7891

## Multiplexed Cell Viability/Cytotoxicity

MultiTox-Glo Multiplex Cytotoxicity Assay <i>Sequential same-well multiplex of CellTiter-Fluor™ and CytoTox-Glo™ Assays to measure both live and dead cells. Protocols for 96- and 384-well assays included.</i>	10ml	G9270
	5 x 10ml*	G9271
MultiTox-Fluor Multiplex Cytotoxicity Assay <i>Same-well multiplex of CellTiter-Fluor™ and CytoTox-Fluor™ Assays to measure both live and dead cells. Multiplexes well with bioluminescent assays. Protocols for 96- and 384-well assays included.</i>	10ml	G9200
	5 x 10ml*	G9201

## Multiplexed Mitochondrial Toxicity Assay

Mitochondrial ToxGlo™ Assay <i>Sequential add-mix-measure assays to measure membrane integrity and mitochondrial function through ATP. Allows distinction between treatments that cause necrosis and treatments that affect mitochondrial ATP production.</i>	10ml	G8000
	100ml	G8001

\*Larger or alternative catalog sizes available.

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## Apoptosis Assays

Caspase-Glo® 3/7 Assay <i>Add-mix-measure cell-based luminescent assay for activated caspase-3 or caspase-7. Protocols for 96- and 384-well assays included.</i>	10ml	G8090
	10 x 10ml*	G8091
Caspase-Glo® 8 Assay <i>Add-mix-measure cell-based luminescent assay for activated caspase-8. Protocols for 96- and 384-well assays included.</i>	10ml*	G8201
Caspase-Glo® 9 Assay <i>Add-mix-measure cell-based luminescent assay for activated caspase-9. Protocols for 96- and 384-well assays included.</i>	10ml*	G8211
Apo-ONE® Homogeneous Caspase-3/7 Assay <i>Lytic add-mix-measure cell-based fluorescent (Rhodamine 110) assay for activated caspase-3 (or caspase-7). Protocols for 96- and 384-well assays included.</i>	10ml	G7790
	100ml	G7791
RealTime-Glo™ Annexin V Apoptosis and Necrosis Assay <i>Monitor apoptosis continuously over 48 hours with this non-lytic assay based on Annexin V binding to phosphatidyl serine exposed on the cell surface. Uses NanoBIT® Technology to generate luminescent signal. Includes Necrosis Detection Reagent to distinguish dead cells from apoptotic cells. Available without Necrosis Reagent.</i>	100 assays	JA1011
	1,000 assays	JA1012

## Multiplex Cell Viability/Apoptosis Assay

ApoLive-Glo™ Multiplex Assay <i>Single-well multiplex assay combines CellTiter-Fluor™ Assay with Caspase-Glo® 3/7 Assay to measure active caspase-3/7. Normalize caspase activity to live cell number. Protocols for 96- and 384-well assays included. Can be combined with CellTox™ Green Assay for measuring cytotoxicity.</i>	10ml	G6410
	5 x 10ml	G6411

## Multiplex Cell Viability/Cytotoxicity/Apoptosis Assay

ApoTox-Glo™ Triplex Assay <i>Single-well multiplex assay to determine cell death mechanism. Measure live and dead cells with the MultiTox-Fluor Assay followed by the Caspase-Glo® 3/7 Assay. Protocols for 96- and 384-well assays included.</i>	10ml	G6320
	5 x 10ml	G6321

## Oxidative Stress Assays

ROS-Glo™ H <sub>2</sub> O <sub>2</sub> Assay <i>Quantitate the ROS generation by measuring H<sub>2</sub>O<sub>2</sub> without using horseradish peroxidase. The ROS-Glo™ H<sub>2</sub>O<sub>2</sub> Substrate reacts directly with H<sub>2</sub>O<sub>2</sub>. The two-step assay quantitates H<sub>2</sub>O<sub>2</sub> from cells cultured in multiwell plates.</i>	10ml	G8820
	50ml	G8821
GSH-Glo™ Glutathione Assay <i>30 minute two-step assay for the detection and quantification of glutathione levels in cells cultured in multiwell plates. Protocols for 96- and 384-well assays included.</i>	10ml	V6911
	50ml	V6912
GSH/GSSG-Glo™ Assay <i>Parallel measurement of total glutathione and oxidized glutathione in cells cultured in multiwell plates. Protocols for 96- and 384-well assays included.</i>	10ml	V6611
	50ml	V6612

## Energy Metabolism Assays

NAD/NADH-Glo™ Assay <i>Directly detect total oxidized and reduced NAD<sup>+</sup> and NADH, respectively, and determine their ratio in biological samples. Simple add-mix-measure assay.</i>	10ml	G9071
	50ml	G9072
NADP/NADPH-Glo™ Assay <i>Directly detect total oxidized and reduced NADP<sup>+</sup> and NADPH, respectively, and determine their ratio in biological samples. Simple add-mix-measure assay.</i>	10ml	G9081
	50ml	G9082
Glucose Uptake-Glo™ Assay <i>Highly sensitive, non-radioactive, plate-based 3-step luminescent assay to monitor glucose uptake in cultured cells. Utilizes 2-deoxyglucose and measures 2-deoxyglucose-6-phosphate accumulated in cells.</i>	5ml	J1341
	10ml*	J1342

## Energy Metabolite Assays

Measures metabolites in culture media (media sample assay) or within cells (lytic assay). Sensitive assays use common sample prep allow one sample (e.g., 2-5µl of culture medium) to be used to measure all 4 metabolites. Glutamine/Glutamate-Glo™ Assay requires two assays one for Glutamate and one treated with glutaminase to convert glutamine to glutamate for assay. Difference between the two is the Glutamine level.	<b>Glucose-Glo™ Assay</b>	5ml*	J6021
	<b>Lactate-Glo™ Assay</b>	5ml*	J5021
	<b>Glutamate-Glo™ Assay</b>	5ml*	J7021
	<b>Glutamine/Glutamate-Glo™ Assay</b>	5ml*	J8021