

# Cell-Based and In Vitro Assays for GloMax<sup>®</sup> Instruments

GloMax<sup>®</sup> Instruments are your gateway to easier detection, better data and more applications. Expand your lab's capability and open up new possibilities by exploring our numerous kits and reagents—all designed to work seamlessly with GloMax<sup>®</sup> Instruments.

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# Luminescent Cell-Based Assays

# Compatible with GloMax $^{\rm \tiny B}$ Discover and Explorer Multimode Instruments and GloMax $^{\rm \tiny B}$ Navigator Microplate Luminometer

Description	Size	Cat.#
Protein Tagging Detection Systems		
Nano-Glo® HiBiT Lytic Detection System	10ml	N3030
to quantify HiBiT-tagged proteins within a cell.	100ml*	N3040
Nano-Glo <sup>®</sup> HiBiT Extracellular Detection System	10ml	N2420
substrate to quantify HiBiT-tagged proteins on the cell surface or secreted into the culture medium.	100ml*	N2421
Live-Cell Protein Interactions		
NanoBRET <sup>™</sup> Nano-Glo <sup>®</sup> Detection System NanoBRET <sup>™</sup> Nano-Glo <sup>®</sup> Substrate and HaloTag <sup>®</sup> NanoBRET <sup>™</sup> 618 Lingard for detection of NanoBRET <sup>™</sup>	200 assays	N1661
extended kinetic analysis also available. GloMax® Discover only.	1,000 assays*	N1662
Nano-Glo® Live Cell Assay System	100 assays	N2011
Interaction Assays.	vith the NanoBi I® Protein 1,000 . 1,000 assays*	N2012
NanoBRET <sup>™</sup> Target Engagement	BET BRD*	N2130
in intact cells in real time. Uses an expressed cellular target protein fused to NanoLuc® Luciferase. <i>GloMax® Discover only.</i>	HDAC*	N2080
NanoBRET <sup>™</sup> TE Intracellular Kinase Assays A fixed concentration of tracer is added to cells expressing the desired kinase-NanoLuc® Vector fusion to generate a BRET signal. <i>GloMax® Discover only</i> .	Multiple kinases and sizes are available	
NanoBRET <sup>™</sup> Nano-Glo <sup>®</sup> Substrate/ Extracellular NanoLuc <sup>®</sup> Inhibitor The NanoBRET <sup>™</sup> Nano-Glo® Substrate generates luminescence from intracellular NanoLuc® fusion proteins, providing energy transfer to kit-specific	1,000 assays	N2160
Fluorescent tracers and resulting in BRET. The Extracellular NanoLuc <sup>®</sup> Inhibitor is for inhibition of NanoLuc <sup>®</sup> Luciferase that has leaked into the culture medium from dead cells. Detection systems for extended kinetic analysis also available. <i>GloMax<sup>®</sup> Discover only.</i>	10,000 assays	N2161
Reporter Bioassays		
Multiple products available. Luminescent bioassays for effector activity, immune check retargeting, cytokine and growth factor signaling and tumo killing assays to characterize and develop novel mAb-base	point modulation, r antigen-specific d therapeutics.	cell cell
Reporter Gene Assays		

Nano-Glo <sup>®</sup> Dual-Luciferase <sup>®</sup> Reporter Assay System	10ml	N1610
Consecutive add-mix-measure assays for firefly and NanoLuc® Luciferase with longer signal half-life (2 hours each).	100ml*	N1620
Nano-Glo® Luciferase Assay System	10ml	N1110
Add-mix-measure assay for NanoLuc® Luciferase with anatural >2-hour half-life in most applications.	100ml*	N1120
Nano-Glo <sup>®</sup> Endurazine <sup>™</sup> and Vivazine <sup>™</sup> Live Cell Substrates Substrates to enable live-cell, nonlytic assays with NanoLuc <sup>®</sup> or NanoBiT <sup>®</sup> luciferases for up to 72 hours.	0.1ml*	N2590

Dual-Glo <sup>®</sup> Luciferase Assay System Consecutive add-mix-measure assavs for firefly	10ml	E2920
and <i>Renilla</i> luciferase with longer signal half-life (2 hours each).	100ml*	E2940
Dual-Luciferase® Reporter Assay System	100 assays	E1910
Lyse cells, and then assay a portion for both firefly and <i>Renilla</i> luciferase, consecutively. Needs two injectors.	1,000 assays	E1960
ONE-Glo™ Luciferase Assay System	10ml	E6110
luciferase assay using more stable fluoroluciferin.	100ml*	E6120
ONE-Glo™ EX Luciferase Assay System	10ml	E8110
Add-mix-measure extended half-life (2 hours) assay — with increased reconstituted reagent stability.	100ml*	E8120
Bright-Glo™ Luciferase Assay System	10ml	E2610
Add-mix-measure extended nait-life (30 minutes) firefly — luciferase assay.	100ml*	E2620
Steady-Glo® Luciferase Assay System	10ml	E2510
Add-mix-measure extended half-life (5 hours) firefly	100ml*	E2520
Renilla-Glo™ Luciferase Assay System	10ml	E2710
Add-mix-measure extended half-life (60 minutes) – <i>Renilla</i> luciferase assay.	100ml*	E2720
Beta-Glo® Assay System	10ml	E4720
Add-mix-measure luminescent β-galactosidase assay.	100ml*	E4740

First generation Luciferase Assay System (e.g., Cat.# E1500), Luciferase Assay System with Reporter Lysis Buffer (e.g., Cat.# E4030) and *Renilla* Luciferase Assay System (e.g., Cat.# E2810) also available.

#### **Cell Viability Assays**

G9711	100 reactions	RealTime-Glo <sup>™</sup> MT Cell Viability Assay Monitor cell health continuously over 72 hours with
G9713	1,000 reactions*	this "zero-step" nonlytic viability assay. Based on reduction of a prosubstrate within the cell diffusing out and reacting with NanoLuc® Luciferase.
GA5010	200 assays	RealTime-Glo™ Extracellular ATP Assay
GA5011	2,000 assays*	Detect ATP released from dying, stressed or activated cells with a homogeneous, live-cell kinetic assay.
G9681	10ml	CellTiter-Glo <sup>®</sup> 3D Cell Viability Assay
G9683	100ml*	ATP-based viability assay truly designed for work with 3D cultures.
G9241	10ml	CellTiter-Glo® 2.0 Cell Viability Assay
G9242	100ml*	use, and store at 4°C (20 weeks) or 22°C (7 days).
G8461	100ml	CellTiter-Glo® One Solution Assay
G8462	500ml	Frozen, ready-to-use assay eliminates several protocol steps. Ideal for HTS in 96- to 1,536-well plate formats.
G8230	10ml	BacTiter-Glo <sup>™</sup> Microbial Cell Viability Assay Rapid 5-minute add-mix-measure ATP assay for
G8232	100ml*	bacteria and yeast with sensitivity to the 10s of cells. Scalable from 96- to 1,536-well plates.
AM1002	20 assays	Water-Glo <sup>™</sup> Microbial Water Testing Kit
AM1003	96 assays	Luminescent assay to detect all live microbes in freshwater, seawater or wastewater.
FF2000	100 assays	ENLITEN® ATP Assay System Luminescent assay to indirectly detect biocontamination on food processing surfaces, cosmetics and beverages or to assay for enzymes that degrade ATP in biological fluids.

\* Larger or alternative catalog sizes available.

Cytotoxicity Assays		
CytoTox-Glo <sup>™</sup> Cytotoxicity Assay Luminescent protease assay measures "dead cell"	10ml	G9290
protease leaked into culture media from cells with compromised membranes. Protocols for 96- and 384- well assays included.	5 × 10ml*	G9291
LDH-Glo™ Cytotoxicity Assay	10ml	J2380
detection of LDH release from small numbers of cells, including 3D cell models.	50ml	J2381
Apoptosis Assays		
RealTime-Glo <sup>™</sup> Annexin V Apoptosis and Necrosis Assay Detect phosphatidylserine appearance on the cell	100 assays	JA1011
surface with the luminescent NanoBiT® technology- based Annexin V molecules and account for dead cells with the fluorescent Necrosis Detection Dye. <i>GloMax® Discover or Explorer</i> .	1,000 assays	JA1012
RealTime-Glo <sup>™</sup> Annexin V Apoptosis Assay	100 assays	JA1000
surface with the luminescent NanoBiT® technology- based Annexin V molecules.	1,000 assays	JA1001
Caspase-Glo® 3/7 Assay	10ml	G8091
Add-mix-measure cell-based luminescent assay for activated caspase-3 or caspase-7.	10 × 10ml*	G8093
Caspase-Glo <sup>®</sup> 3/7 3D Assay	10ml	G8981
optimized for detecting activated caspase-3 or caspase-7 in 3D cell models.	10 × 10ml*	G8982
Caspase-Glo® 8 Assay Add-mix-measure cell-based luminescent assay for activated caspase-8.	10ml*	G8201
Caspase-Glo <sup>®</sup> 9 Assay Add-mix-measure cell-based luminescent assay for activated caspase-9.	10ml*	G8211
Multiplex Assays		
Requires luminometer and fluorometer		
MultiTox-Glo Multiplex Cytotoxicity Assay (Cell Viability/Cytotoxicity)	10ml	G9270
A sequential same well multiplex of cerimer-ridor and CytoTox-Glo <sup>w</sup> Assays to measure both live and dead cells. Protocols for 96- and 384-well assays included.	5 × 10ml*	G9271
ONE-GIo <sup>™</sup> + Tox Luciferase Reporter and Cell Viability Assay Combination of ONE-GIo <sup>™</sup> Luciferase Assay System	1 plate	E7110
and cell lifer-Fluor" cell viability Assay with a unified protocol to measure reporter response in the context of cell health.	10 plates	E7120
ApoLive-Glo <sup>™</sup> Multiplex Assay (Cell Viability/Apoptosis)	10ml	G6410
Single-well multiplex assay combines CellTiter-Fluor™ Assay with Caspase-Glo® 3/7 Assay to measure active caspase-3/7. Normalizes caspase activity to live cell number.	5 × 10ml	G6411
ApoTox-Glo <sup>™</sup> Triplex Assay (Cell Viability/Cytotoxicity/Apoptosis)	10ml	G6320
mechanism. Measure live and dead cells with the MultiTox-Fluor Assay followed by the Caspase-Glo <sup>®</sup> 3/7 Assay.	5 × 10ml	G6321

#### **Oxidative Stress Assays** ROS-Glo<sup>™</sup> H<sub>2</sub>O<sub>2</sub> Assay G8820 10ml Quantitate ROS generation by measuring $H_2O_2$ without using horseradish peroxidase. The ROS-Glo<sup>™</sup> H<sub>2</sub>O<sub>2</sub> Substrate reacts directly with H2O2. The two-step assay 50ml G8821 quantitates H<sub>2</sub>O<sub>2</sub> from cells cultured in multiwell plates. GSH-Glo<sup>™</sup> Glutathione Assay 10ml V6911 A 30-minute two-step assay for the detection and quantification of glutathione levels in cells cultured in 50ml V6912 multiwell plates. GSH/GSSG-Glo<sup>™</sup> Assay 10ml V6611 Parallel measurement of total glutathione and oxidized glutathione in cells cultured in multiwell plates. 50ml V6612 **Energy Metabolism Assays** NAD/NADH-Glo<sup>™</sup> Assay 10ml G9071 Directly detect total oxidized and reduced NAD+ and NÁDH, respectively, and determine their ratio in 50ml G9072 biological samples. Simple add-mix-measure assay. NADP/NADPH-Glo<sup>™</sup> Assay G9081 10ml Directly detect total oxidized and reduced NADP+ and NADPH, respectively, and determine their ratio in 50ml G9082 biological samples. Simple add-mix-measure assay Glucose Uptake-Glo<sup>™</sup> Assay J1341 5ml Highly sensitive three-step luminescent assay to monitor glucose uptake in cultured cells. Utilizes 2-deoxyglucose and measures 2-deoxyglucose-6-10ml\* J1342 phosphate accumulated in cells. Glucose-Glo<sup>™</sup> Assay 5ml J6021 Bioluminescent assay for rapid, selective and sensitive .16022 detection of glucose in biological samples. 50ml Lactate-Glo<sup>™</sup> Assay 5ml J5021 Bioluminescent assay for rapid, selective and sensitive detection of lactate in biological samples. 50ml J5022 Glutamate-Glo<sup>™</sup> Assay J7021 5ml Bioluminescent assay for rapid, selective and sensitive 50ml .17022 detection of glutamate in biological samples. Glutamine/Glutamate-Glo<sup>™</sup> Assay J8021 5ml Glutamine is converted to glutamate with glutaminase, and the glutamate is measured. No-glutaminase control gives background glutamate. Difference gives 50ml J8022 alutamine levels. Cholesterol/Cholesterol Ester-Glo<sup>™</sup> Assay J3190 5ml Detects cholesterol from a variety of biological samples. No organic extraction or extreme heat/ 50ml J3191 centrifugation necessary. Triglyceride-Glo<sup>™</sup> Assay J3160 5ml Detects triglyceride from a variety of biological samples. No organic extraction or extreme heat/ 50ml J3161 centrifugation necessary. Glycerol-Glo<sup>™</sup> Assay 5ml J3150 Bioluminescent assay for rapid, selective and sensitive detection of glycerol in biological samples. 50ml J3151 Mitochondrial ToxGlo<sup>™</sup> Assay G8000 10ml 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 G8001 100ml mitochondrial ATP production. **Histone Deacetylase Assays** HDAC-Glo<sup>™</sup> I/II Assay G6420 10ml One-step assay for HDAC class I or class II enzymes in cultured cells, extracts or purified enzymes. Protocols 5 × 10ml\* G6421 for 96- and 384-well assays included HDAC-Glo<sup>™</sup> Class IIa Assay 10ml G9560 HDAC-Glo<sup>™</sup> 2 Assay G9590 10ml

Proteasome Activity Assays		
Proteasome-Glo <sup>™</sup> 3-Substrate Cell-Based Assay Rapid add-mix-measure assay of either caspase-like,	10ml	G1180
chymotrypsin-like or trypsin-like proteasome activities. All three assay kits bundled under one catalog number.	50ml	G1200
Proteasome-Glo™ Caspase-Like Assay	10ml	G8860
Rapid add-mix-measure assay of caspase-like proteasome activity. Protocols for 96- and 384-well plate formats.	50ml	G8861
Proteasome-Glo <sup>™</sup> Chymotrypsin-Like Assay Rapid add-mix-measure assay of chymotrypsin-like	10ml	G8660
proteasome activity. Protocols for 96- and 384-well plate formats.	50ml*	G8661
Proteasome-Glo <sup>™</sup> Trypsin-Like Assay Rapid add-mix-measure assay of trypsin-like	10ml	G8760
proteasome activity. Protocols for 96- and 384-well plate formats.	50ml	G8761
Cytochrome P450 Assays		
P450-Glo™ CYP3A4 Assay with Luciferin-IPA	10ml	V9001
Rapid two-step assay of CYP3A activity in cultured cells. Most selective substrate for the CYP3A4 isozyme.	50ml	V9002
P450-Glo™ CYP2B6 Assay	10ml	V8321
Rapid two-step assay of CYP2B activity in cultured cells. Most selective substrate for the CYP2B6 isozyme.	50ml	V8322
P450-Glo <sup>™</sup> CYP1A2 Induction/Inhibition Assay	10ml	V8421
cells. Most selective substrate for the CYP1A2 isozyme.	50ml	V8422
P450-Glo™ CYP1A1 Assay (Luciferin-CEE)	10ml	V8751
Rapid two-step assay of CYP1A activity in cultured cells.	50ml	V8752
P450-Glo™ CYP2C9 Assay (Luciferin-H)	10ml	V8791
Rapid two-step assay of CYP2C activity in cultured cells. Most selective substrate for CYP2C9.	50ml	V8792

Viral Toxicity Assay		
Viral ToxGlo <sup>™</sup> Assay Simple, quantifiable method for determining viral-	10ml	G8941
by lytic virions. Simple add-mix-measure protocol yields data in 10 minutes.	10 × 10ml*	G8942
Inflammasome Assays		
Caspase-Glo <sup>®</sup> 1 Inflammasome Assay Follow inflammasome activation through the	10ml	G9951
gain of active caspase-1 activity. Simple add-mix-measure assay.	5 × 10ml*	G9952
Lumit™ Human II -16 Immunoaccav	100 assays	W6010
Detect release of processed human IL-1 $\beta$ directly in	500 assays	W6012
cell culture samples with a simple add-mix-measure immunoassay complete in 70 minutes.	1,000 assays	W6011
Lumit™ Mouse IL-1β Immunoassay	100 assays	W7010
Detect release of processed mouse IL-1β directly in cell culture samples with a simple add-mix-measure	500 assays	W7012
immunoassay complete in 70 minutes.	1,000 assays	W7011
cAMP Assay		
cAMP-Glo <sup>™</sup> Max Assay A 30-minute, two-step assay for measuring cAMP levels in cells. Luminescent signal is inversely proportional to cAMP content of cells. Sufficient reagents for indicated 96- or 384-well plates.	2 plates	V1681
	20 plates*	V1682
	300 assays	V1501
<b>cAMP-Glo™ Assay</b> A 45-minute assay for measuring cAMP levels in cells.	3,000 assays	V1502
content of cells.	30,000 assays	V1503

\* Larger or alternative catalog sizes available.

# Luminescent Biochemical In Vitro Assays

Compatible with GloMax<sup>®</sup> Discover and Explorer Multimode Instruments and GloMax<sup>®</sup> Navigator Microplate Luminometer

Description	Size	Cat.#
Kinase and ATPase Assays		
ADP-Glo™ Kinase Assay†	1,000 assays	V9101
Luminescent antibody-free ADP accumulation assay to quantitate any ADP-generating reaction starting from 0–1mM ATP. Light output is directly proportional to	10,000 assays	V9102
kinase activity. Ideal for protein, lipid or sugar kinases. Assay sizes indicated are for 384-well format.	10 × 10,000* assays	V9103
ADP-Glo <sup>™</sup> Max Assay Luminescent antibody-free ADP accumulation assay to quantitate any ADP-generating reaction starting from	1,000 assays	V7001
0–5mM ATP. Light output is directly proportional to kinase or ATPase activity. Ideal for examining non-ATP binding site kinase inhibitors and ATPases. Assay sizes indicated are for 384-well format.	10,000 assays	V7002

Kinase-Glo® Luminescent Kinase Assay	10ml	V6711
Add-mix-measure ATP depletion assay starting from	10 × 10ml	V6712
0-10µM ATP. Light output is inversely proportional to kinase activity. Protocols for 96- and 384-well assays	100ml	V6713
included.	10 × 100ml	V6714
Kinase-Glo® Plus Luminescent Kinase Assav	10ml	V3771
Add-mix-measure ATP depletion assay starting from	10 × 10ml	V3772
0–100µM ATP. Light output is inversely proportional to kinase activity. Protocols for 96- and 384-well assays included.	100ml	V3773
	10 × 100ml	V3774
Kinase-Glo® Max Luminescent Kinase Assav	10ml	V6071
Add-mix-measure ATP depletion assay starting from	10 × 10ml	V6072
$0-500\mu$ M ATP. Light output is inversely proportional to	100ml	V6073
included.	10 × 100ml	V6074

Kinase and ATPase Assays, continued		
Pgp-Glo <sup>™</sup> Assay Luminescent P-glycoprotein ATPase assay to identify stimulators or inhibitors of ATPase. Light output is inversely proportional to P-glycoprotein ATPase activity. Protocols for 96-well assays included.	10ml	V3591
<b>Pgp-Glo™ with P-Glycoprotein</b> The Pgp-Glo™ Assay plus membranes containing recombinant human P-glycoprotein.	10ml	V3601
<ul> <li>T Also available with &gt;370 different human Kinase Enzyme Assay Sy- substrate and reaction buffer. For more information and list of kina www.promega.com/kinase</li> </ul>	stems providin ses, visit:	g kinase,
GTPase Assay		
GTPase-Glo <sup>™</sup> Assay Assess the activity of GTPases, GAPs and GEFs by	1,000 assays	V7681
detecting the amount of GTP remaining after GTP hydrolysis in a GTPase reaction. Simple two-step assay. Assay size refers to 384-well plate reactions.	10,000 assays	V7682
NADH or NADPH Biochemical Assay		
NAD(P)H-GIo <sup>™</sup> Detection System Quantifies NADH and/or NADPH and does not discriminate between them. The oxidized forms.	10ml	G9061
NAD+ and NADP+, are not detected and do not interfere with quantitation.	50ml	G9062
Cytochrome P450 Biochemical Assays		
P450-Glo <sup>™</sup> Assays are designed to rapidly quantify cytochrome P450. Tox profiling. Each assay uses a substrate selective for an isozyme. proluciferin to luciferin, which is measured in a luciferase reaction. Li to isozyme activity. Each in vitro or biochemical P450-Glo <sup>™</sup> Assay rec purchase of the NADPH Regeneration System (Cat.# V9510; 1,000 as	) activity for AE The isozyme co ght output is p quires the addit ssays, 96-well 1	DME/ converts a roportional tional format).
P450-Glo™ CYP2B6 Assay†	10ml*	V8321
P450-Glo™ CYP3A4 Assay with Luciferin IPA+	10ml*	V9001
P450-Glo™ CYP3A4 (Luciferin-PPXE) DMSO-Tolerant Assayt	10ml*	V8911
P450-Glo <sup>™</sup> CYP1A1 Assay (Luciferin-CEE)	10ml*	V8751
P450-Glo <sup>™</sup> CYP1A2 Induction/Inhibition Assay	10ml*	V8421
P450-Glo™ CYP1A2 Assay (Luciferin-ME)+	10ml*	V8771
P450-Glo <sup>™</sup> CYP1B1 Assay (Luciferin-CEE)	10ml*	V8761
P450-Glo <sup>™</sup> CYP2C8 Assay (Luciferin-ME)	10ml*	V8781
P450-Glo™ CYP2C9 Assay (Luciferin-H)†	10ml*	V8791

† P450-Glo<sup>™</sup> Screening Systems available containing the biochemical assay, NAPDH Regeneration System, recombinant CYP450 isoform membranes and control membranes. Each designed for 1,000 assays in 96-well format.

10ml\*

V8891

\* 50ml sizes available.

P450-Glo<sup>™</sup> CYP2D6 Assay (Luciferin-ME EGE)

#### Methyltransferase and Demethylase/Hydroxylase Assays

MTase-Glo <sup>™</sup> Methyltransferase Assay Universal assay to detect methyltransferase activity. Measures S-Adenosyl Homocysteine (SAH) released	400 assays	V7601
from the methyl donor S-Adenosylmethionine (SAM). Simple two-step assay. Assay size refers to 96-well plate reactions.	2,000 assays	V7602
Succinate-Glo <sup>™</sup> JmjC Demethylase/Hydroxylase Assay Bioluminescent assay for detecting the activity of Jumonii C (JmiC) bistone demethylases and many	1,000 assays	V7990
Fe(II)/a-ketoglutarate-dependent dioxygenases that use a-ketoglutarate as substrate and release succinate as a product. Assay size refers to 384-well plate reactions.	10,000 assays	V7991

#### Histone Deacetylase and Sirtuin Assays

HDAC-Glo <sup>™</sup> I/II Assay <del>t</del>	10ml	G6420
One-step assay for HDAC class I or class II enzymes — in cells, extracts or purified enzymes. Protocols for 96- and 384-well assays included.	5 × 10ml*	G6421
HDAC-GIo <sup>™</sup> Class IIa Assay One-step assay that measures the relative activity of histone deacetylase (HDAC) Class IIa enzymes in cells, extracts or purified enzymes. Protocols for 96- and 384-well assays included.	10ml	G9560
HDAC-GIo <sup>™</sup> 2 Assay One-step assay that measures the relative activity of histone deacetylase (HDAC) Class I enzyme 2 in cells, extracts or purified enzymes. Protocols for 96- and 384-well assays included.	10ml	G9590
Proteasome in Vitro Activity Assays		
Proteasome-Glo <sup>™</sup> 3-Substrate System Rapid in vitro add-mix-measure assay of either	10ml	G8531
proteasome activities. All three assay kits bundled under one catalog number.	50ml	G8532
Proteasome-Glo <sup>™</sup> Caspase-Like Assay Rapid in vitro add-mix-measure assay of caspase-like	10ml	G8641
20S proteasome activity. Protocols for 96- and 384- well plate formats.	50ml	G8642
Proteasome-Glo <sup>™</sup> Chymotrypsin-Like Assay Rapid add-mix-measure assay of chymotrypsin-like	10ml	G8621
20S proteasome activity. Protocols for 96- and 384- well plate formats.	50ml	G8622
Proteasome-Glo <sup>™</sup> Trypsin-Like Assay Rapid add-mix-measure assay of trypsin-like 20S	10ml	G8631
proteasome activity. Protocols for 96- and 384-well plate formats.	50ml	G8632
Sugar Transferase Assays		
GDP-Glo <sup>™</sup> Glycosyltransferase Assayt Rapid one-step universal assay of GDP glucuronosyltransferase (GGT) activity through release	200 assays	VA1090
of GDP from a GDP-sugar. Light output is proportional to GDP released from GGT activity. Assay size refers to 96-well format. Scalable to 384-well format. Ultra-pure GDP sugar substrates available.	400 assays*	VA1091
UDP-Glo <sup>™</sup> Glycosyltransferase Assayt Rapid one-step universal assay of UDP glucuronosyltransferase (UGT) activity through release	200 assays	V6961
to UDP released from UGT activity. Assay size refers to 96-well format. Scalable to 384-well format. Ultra-pure UDP sugar substrates available.	400 assays*	V6962
UMP/CMP-Glo <sup>™</sup> Glycosyltransferase Assay Rapid one-step assay. Detects sialyltransferases and	200 assays	VA1130
phosphoglycosyltransferases that use CMP, CDP or UDP-sugars as donor substrates. Assay size refers to 96-well format. Scalable to 384-well format.	400 assays*	VA1131
AMP Accumulation Assay		
AMP-Glo™ Assay Luminescent method for measuring any biochemical	1,000 assays	V5011
reaction that produces AMP as a reaction product. — Light output is proportional to enzyme activity. Assay size refers to 384-well format.	10,000 assavs	V5012

\* Larger or alternative catalog sizes available.

† Screening systems with enzymes or specialized substrates available.

Phosphodiesterase Assay		
<b>PDE-Glo" Assay</b> Luminescent method for measuring cyclic nucleotide phosphodiesterase activity (both cAMP and cGMP) from purified sources. Light output is proportional to enzyme activity. Assay size refers to 384-well format.	1,000 assays	V1361
Monoamine Oxidase (MAO) Assays		
MAO-GIo <sup>™</sup> Assayt Rapid assay for monoamine oxidase (MAO) A or B activity in vitro from recombinant or natural sources.	200 assays	V1401
Light output is proportional to enzyme activity. Assay size refers to 96-well format. Scalable to 384- and 1.536-well formats.	1,000 assays	V1402

#### In Vitro Protease Assays

Rapid, sensitive assays designed for inhibitor/activator screening of specific enzyme in an in vitro assay. Substrates contain a peptide attached to aminoluciferin. Cleavage of the peptide releases the aminoluciferin to participate in the luciferase reaction generating light. Therefore, light output is proportional to enzyme activity. Luminescent protease assays can be 10- to 100-fold more sensitive than fluorescent assays. Protocols for 96- and 384-well plate formats.

Calpain-Glo <sup>™</sup> Assay Measures calpain I or II	10ml*	G8501
<b>DPPIV-GIo™ Assay</b> Measures dipeptidyl peptidase IV	10ml*	G8350

\* Larger or alternative catalog sizes available

# Immunoassay Detection and Labeling Systems

#### Compatible with GloMax® Discover and Explorer Multimode Instruments

Description	Size	Cat.#
Lumit <sup>™</sup> Labeling and Detection Kits		
Lumit <sup>™</sup> Immunoassay Labeling System Perform labeling of antibodies with Lumit <sup>™</sup> reagents to create your own Lumit <sup>™</sup> Immunoassay for additional targets.	1 each	VB2500
Lumit <sup>™</sup> Immunoassay Detection Reagent A Detection reagent used with labeled Lumit <sup>™</sup> antibodies.	500 assays	VB2010
Lumit <sup>™</sup> Immunoassay Detection Reagent B Detection reagent used with labeled Lumit <sup>™</sup> antibodies incell based applications.	100 assays	VB4050

# View the most current list of Lumit<sup>™</sup> products at: promega.com/LumitAssays

Lumit™ Immunoassay Cellular Systems		
Lumit <sup>™</sup> Immunoassay Cellular System Starter Kit Two sets of labeled secondary antibodies and reagents required to perform Lumit <sup>™</sup> assays with customer- provided primary antibodies. Also available as separate Set 1 (W1201) and Set 2 (W1331) configurations.	200 assays	W1220
Lumit <sup>™</sup> Immunoassay Lysis and Detection Kit Includes reagents required to lyse cells and detect Iuminescence in Lumit <sup>™</sup> cellular assays with customer- provided primary antibodies.	100 assays	W1231
Neonatal Fc Receptor Binding		
Lumit <sup>™</sup> FcRn Binding Immunoassay No-wash competition assay to measure the interaction	100 assays	W1151
between human FcRn and Fc proteins, including antibodies. Results in <1 hour.	1,000 assays	W1152

### **Fluorometric Assays**

#### Compatible with GloMax® Discover and Explorer Multimode Instruments

			Optical	Kit Used
Description	Size	Cat.#	UV	BLUE
Nucleic Acid Quantitation				
QuantiFluor® ONE dsDNA System Pre-diluted QuantiFluor® dsDNA Dye solution and standard for quicker reads.	100 reactions	E4871		х
QuantiFluor® dsDNA System Quantitate dsDNA down to 50pg/ml or 5pg/well in 96-well format. 1ml provides 2,000 assays in 96-well format. Includes standard.	1ml	E2670		х
QuantiFluor® Dx dsDNA System* Sensitive and specific quantitation of dsDNA. Suitable for use with in vitro diagnostic assays, including the OncoMate™ MSI Dx Analysis System. IVD medical device.	2,000 reactions	E5900		х
QuantiFluor® RNA System Quantitate RNA down to 2ng/ml or 200pg/well in 96-well format. 1ml provides 2,000 assays in 96-well format. Includes standard.	1ml	E3310		х
QuantiFluor® ssDNA System Quantitate ssDNA down to 200pg/well. 1ml provides 2,000 assays in 96-well format. Includes standard.	1ml	E3190		x

\*This product is only available in the United States.

**Optical Kit Used** 

Description	Size	Cat.#	AFC	BLUE	GREEN	LUMINESCENCE
Cell Viability Assays						
CellTiter-Fluor™ Cell Viability Assay	10ml	G6080	х			
to the 100s of cells. Multiplexes well with luminescent and fluorescent assays. Protocols for 96- and 384-well formats included.	5 × 10ml*	G6081	х			
CellTiter-Blue <sup>®</sup> Cell Viability Assay Nonlytic fluorescent (resazurin/resorufin) assay measuring reducing potential within cell with sensitivity to the 100s of cells. Protocols for 96- and 384-	20ml	G8080			x	
well formats included. Not recommended for multiplexing with luminescent assays due to the intense color of the reagent leading to color quenching of luminescence.	100ml	G8081			х	
Cytotoxicity Assays						
CellTox <sup>™</sup> Green Cytotoxicity Assay Dye-based, non-toxic membrane integrity assay that labels DNA in cells with	10ml	G8741		x		
compromised memoranes. Add at plating or dosing to assess cytotoxicity kinetically, or wait and add at the end of your incubation. Multiplexes well with luminescent and fluorescent assays. 1000X dye solution scales from 96- to 1,536-well plates.	50ml*	G8742		x		
CytoTox-Fluor™ Cytotoxicity Assay Nonlytic fluorescent (Rhodamine 110) protease release assay measures "dead cell" protease leaked into culture media from cells with compromised	10ml	G9260		x		
membranes. Multiplexes well with luminescent and fluorescent assays. Protocols for 96- and 384-well formats included.	5 × 10ml*	G9261		х		
CytoTox-ONE <sup>™</sup> Homogeneous Membrane Integrity Assay Nonlytic fluorescent (resazurin/resorufin) assay measures lactate dehydrogenase (LDH) leaked into culture media from cells with compromised	200-800 assays	G7890			x	
membranes. Protocols for 96- and 384-well formats included. Not recommended for multiplexing with luminescent assays due to the intense color of the reagent leading to color quenching of luminescence.	1,000-4,000 assays*	G7891			x	
Multiplexed Cell Viability/Cytotoxicity Assays						
MultiTox-Fluor Multiplex Cytotoxicity Assay A same-well multiplex of CellTiter-Fluor <sup>™</sup> and CytoTox-Fluor <sup>™</sup> Assays to measure	10ml	G9200	x	х		
Multiplexes well with bioluminescent assays. Protocols for 96- and 384-well assays included.	5 × 10ml	G9201	х	x		
MultiTox-Glo Multiplex Cytotoxicity Assay A sequential same-well multiplex of CellTiter-Fluor™ and CytoTox-Glo™ Assays	10ml	G9270		х		x
to measure both live and dead cells to differentiate cytotoxic from cytostatic response. Protocols for 96- and 384-well assays included.	5 × 10ml*	G9271		х		х
Apoptosis Assay						
Apo-ONE® Homogeneous Caspase-3/7 Assay	10ml†	G7790		х		
activated caspase-3 (or caspase-7). Protocols for 96- and 384-well assays included.	100ml	G7791		x		
Multiplexed Cell Viability/Cytotoxicity Assays						
ApoLive-Glo <sup>™</sup> Multiplex Assay	10ml	G6410	х			х
3/7 Assay to measure active caspase-3/7. Normalizes caspase activity to live cell number. Protocols for 96- and 384-well assays included.	5 × 10ml	G6411	х			x
ApoTox-Glo™ Triplex Assay Single-well multiplex assay to determine cell death mechanism. Measures live	10ml	G6320	x	х		x
and dead cells with the MultiTox-Fluor Assay followed by the Caspase-Glo® 3/7 Assay. Protocols for 96- and 384-well assays included.	5 × 10ml	G6321	х	x		X

\* Larger or alternative format catalog sizes available.

† Smaller catalog sizes available.

# **Colorimetric Assays**

Compatible with GloMax® Discover and Explorer Multimode Instruments

			Filter Used			
Description	Size	Cat.#	450nm	490nm	560nm	600nm
Cell Viability Assays			Filter Used			
<b>CellTiter 96<sup>®</sup> A<sub>Queous</sub> One Solution Cell Proliferation Assay</b> Nonlytic MTS assay measuring reducing potential through an electron coupling	200 assays	G3582		x		
reagent, PES, with sensitivity to the 100s–1000s of cells. MTS/ PES solution comes as a pre-mixed single reagent, ready for use. Protocols for 96-well formats included.	1,000 assays*	G3580		x		
CellTiter 96 <sup>®</sup> A <sub>queous</sub> Non-Radioactive Cell Proliferation Assay	1,000 assays	G5421		х		
reagent, PMS, with sensitivity to the 100s–1000s of cells. MTS/PMS solution is mixed just prior to use. Protocols for 96-well formats included.	5,000 assays*	G5430		х		
CellTiter 96® Non-Radioactive Cell Proliferation Assay MTT assay directly measuring reducing potential in cells, with sensitivity to the 100s–1000s of cells. Comes with Dye Solution (MTT) and Solubilization Solution/Stop Mix. Protocols for 96-well formats included.	1000 assays	G4000			x	
	5,000 assays	G4100			х	
Cytotoxicity Assay						
CytoTox 96 <sup>®</sup> Non-Radioactive Cytotoxicity Assay Nonlytic colorimetric (INT) assay measures lactate dehydrogenase (LDH) leaked into culture media from cells with compromised membranes. Protocols for 96- and 384-well formats included.	1,000 assays	G1780		x		
Nitric Oxide Assay						
<b>Griess Reagent System</b> Measures nitrite (NO <sub>2</sub> -), one of the stable, nonvolatile breakdown products of nitric oxide. Use to measure NO in liquid materials such as plasma, serum, urine or conditioned cell culture medium. Protocols for 96-well formats included.	1,000 assays	G2930			x	
Phosphatase Assays						

The Phosphatase Assay Systems are based on measuring free phosphate liberated from a peptide or protein substrate by a phosphatase by the formation of a colorimetric molybdate:malachite green:phosphate complex. Each system includes the dye mix and one or two phosphorylated substrate peptides.

Serine/Threonine Phosphatase Assay System Contains one peptide substrate, suitable for PPase 2A, 2B and 2C.	96 reactions	V2460		x
Tyrosine Phosphatase Assay System Contains two peptide substrates, suitable for many tyrosine phosphatases.	96 reactions	V2471		x

\*Larger catalog sizes available



For more information about the cell-based assays listed, visit: promega.com/CellBiologyAssays



For more information about the protein analysis assays listed, visit: promega.com/ProteinAnalysis



See our collection of example protocols and data generated using GloMax<sup>®</sup> Instruments at: promega.com/GloMaxAppNotes

Apo-ONE, Beta-Glo, Caspase-Glo, CellTiter 96, CellTiter-Blue, CellTiter-Glo, CytoTox 96, Dual-Glo, Dual-Luciferase, ENLITEN, GloMax, HaloTag, Kinase-Glo, NanoBiT, Nano-Glo, NanoLuc, QuantiFluor and Steady-Glo are registered trademarks of Promega Corporation.

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