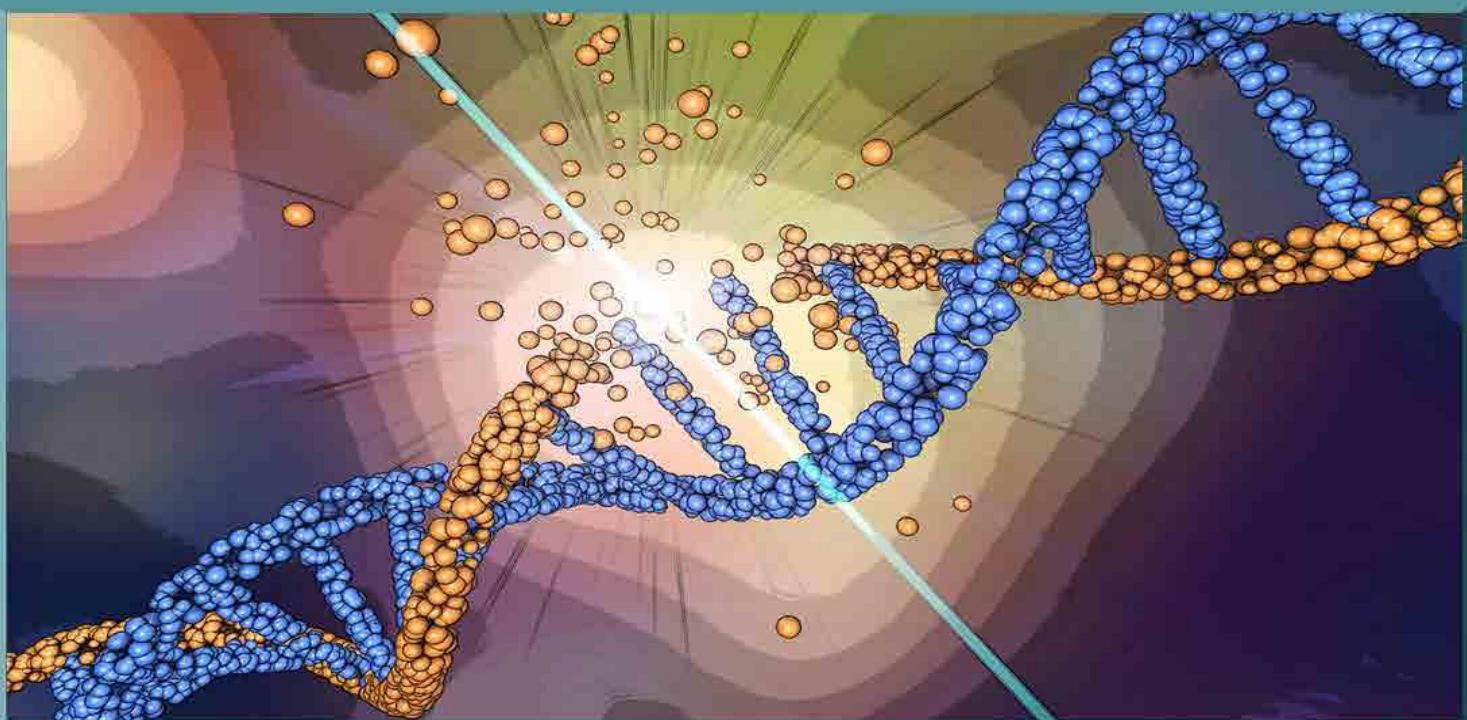




DNA DAMAGE RESPONSE

TOOLS & SERVICES FOR DRUG DISCOVERY

PARPtrap™ | Enzymatic Assay Kits | Cell-based PARylation Assay
Active Proteins | Reporter Lentiviruses | Screening & Profiling Services



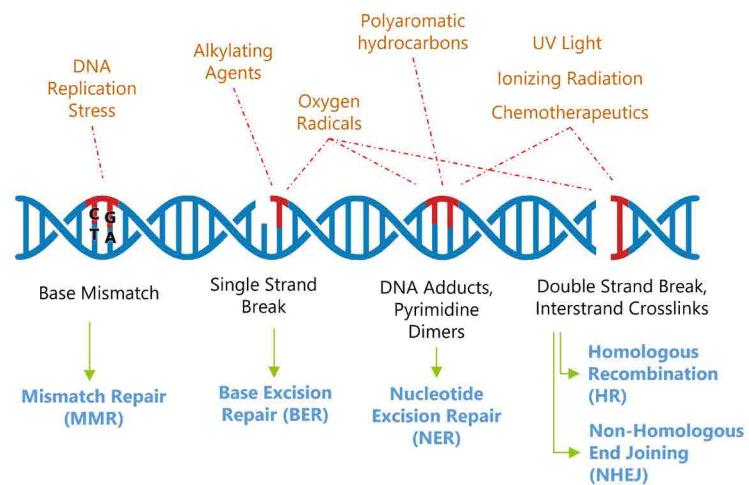
DNA Replication and DNA Damage Repair

DNA damage, resulting in base mismatches, bulky adducts, cross-links, single strand breaks, or double strand breaks, can occur from a variety of exogenous and endogenous mechanisms. For example, normal replication cycles have the potential to damage DNA. In response, mammalian cells employ an array of mechanisms to repair the damaged DNA. Repair pathways can also trigger cell cycle blockade, stress responses, and apoptosis.

Thus, repair processes are critical for maintaining healthy cells, while potentially serving as therapeutic targets in oncology.

Specifically, some inhibitors of DNA Damage Response (DDR) pathways increase the efficacy of DNA damaging cancer therapy (such as chemo or radiotherapy), whereas other DDR inhibitors display synthetic lethality when combined with a genetic alteration or chemical inhibition of complementary DDR pathways.

Also of great therapeutic potential are inhibitors of cell cycle progression. Indeed, CDK4 (Cyclin-dependent kinase) and CDK6 inhibitors are currently used to treat breast cancer and are in clinical trial alone or in combination to treat other types of cancer including lung cancer, melanoma, and lymphomas.



Our Advantages



Produced In-House

- Made in the USA at our San Diego, CA laboratory
- Get customized, personal support directly from our experts



Committed to Excellence

- ISO 9001:2015-certified Quality Management System
- Lot-specific quality controls



Screening & Profiling Services

- Panel of Assays for Evaluation of Lead compounds
- Select from IC₅₀ determination or single point concentrations
- Ready-to-use Lentiviruses: integrating and non-integrating options



Expansive Portfolio

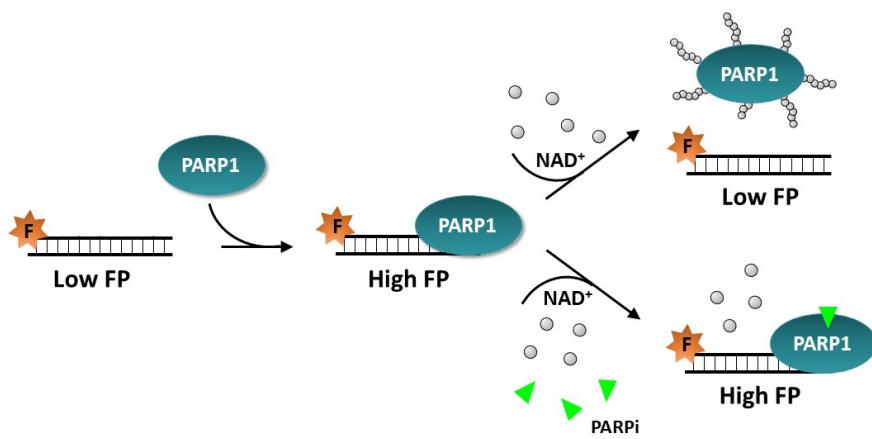
- Unique PARPtrap™ assays
- Full PARP family panel for assessment of compound selectivity
- High quality purified DDR proteins



PARPtrap™ Assay Kits

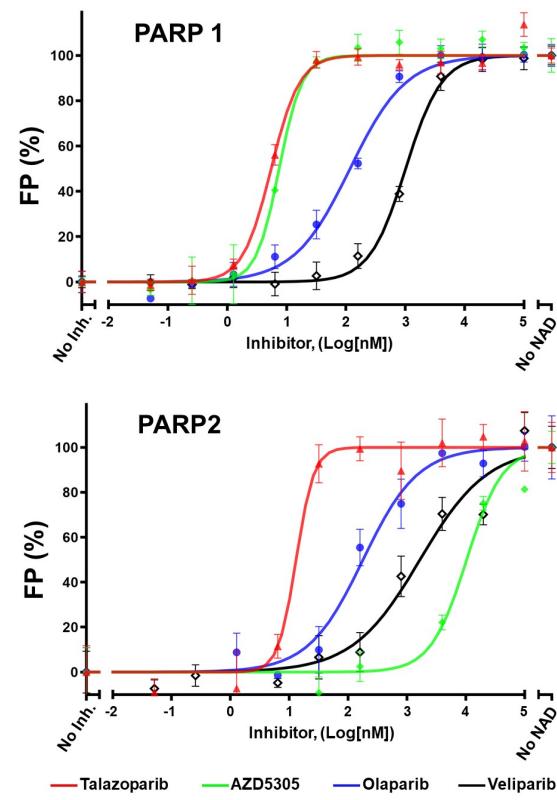
PARP1 and PARP2 bind to damaged DNA and auto-ribosylate in the presence of NAD⁺. This causes them to dissociate from the DNA due to the accumulated negative charge of the ribosyl polymers. Some inhibitors prevent auto-ribosylation, which results in PARP remaining on the DNA, termed "trapping". Trapped PARP-DNA complexes are highly cytotoxic to cancer cells, therefore such inhibitors are desirable for cancer treatment.

Our unique biochemical PARPtrap™ assays use principles of fluorescence polarization (FP). Before ribosylation, PARP binds to the fluorescent DNA probe, forming a large complex and resulting in the emission of polarized fluorescence. Ribosylation is initiated by the addition of NAD⁺ and PARP dissociates from the probe, which is small and rotates freely, resulting in mostly depolarized fluorescence. Thus, the reaction results in a net decrease in fluorescence polarization. Addition of an inhibitor that traps PARP onto the fluorescent DNA probe results in increased FP compared to the condition without inhibitor and is proportional to the concentration and potency of the inhibitor.



Advantages

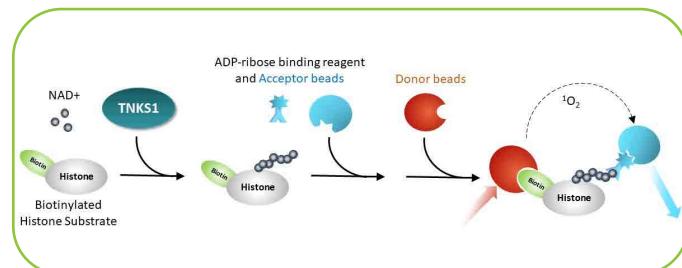
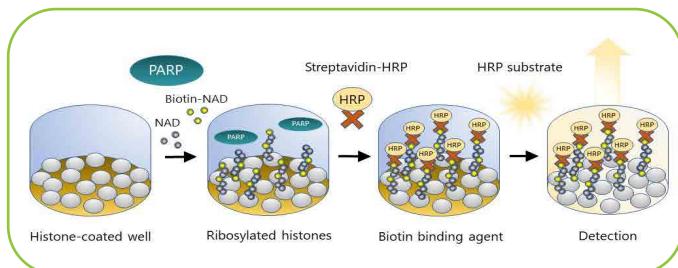
- Homogeneous (no wash)
- Precise FP technology
- Sensitive and robust
- Available in 96-well or 384-well formats
- Highly specific optimized DNA probes for PARP1 and PARP2
- Combo PARPtrap™ assay kit for PARP1 and PARP2 allows direct comparison of potency



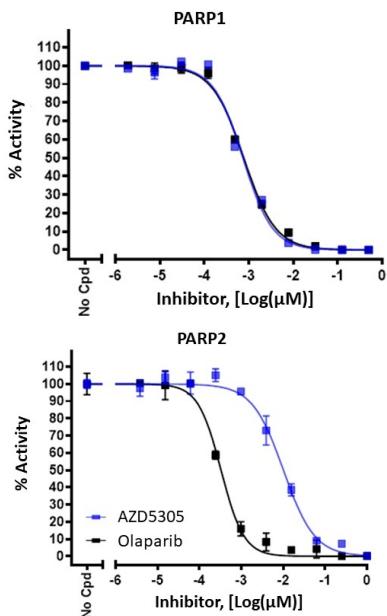
DNA trapping of PARP1 (upper panel) and PARP2 (lower panel) measured in the presence of increasing concentrations of talazoparib, olaparib, veliparib and AZD5305. "No compound" corresponds to the experimental control and "no NAD" corresponds to the highest FP signal allowed by the assay.

PARP Enzymatic Assays

BPS Bioscience offers one of the most extensive product lines on the market, with over 20 validated enzymatic assays in 96-well and 384-well format to assess the efficacy of compounds on almost all PARP family members. ELISA-based measurements of enzymatic activity are available in cost-effective colorimetric, or sensitive chemiluminescent options. AlphaLISA® are fast, simple, homogeneous (no wash) assays.



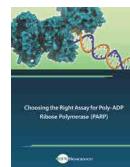
ELISA: Histones are coated on a plate and biotin-labeled NAD⁺ is added with PARP. Mono or poly-ribosylation is detected by adding Streptavidin-HRP (horseradish peroxidase), which binds to the newly formed biotin-ribose chains. A chemiluminescent or colorimetric HRP substrate is added for detection.



PARP1 and PARP2 chemiluminescence assays showed a distinctive inhibition profile for olaparib and AZD5305. Whereas both inhibitors had a similar IC₅₀ for PARP1, they differ by a factor of 300 when used with PARP2 (olaparib IC₅₀ = 0.3 nM; AZD5305 IC₅₀ = 100 nM), demonstrating the exquisite sensitivity of the assays which may help better prioritize compounds for development.

AlphaLISA® Homogeneous Assay: PARP is incubated with a biotinylated histone substrate and NAD⁺ for an hour. An ADP-ribose binding reagent is added with an acceptor bead, then a streptavidin-conjugated donor bead is added. Excitation of the donor bead is transmitted to the acceptor bead.

Chemiluminescent	Colorimetric	AlphaLISA®
PARP1	PARP1	PARP1
PARP2	PARP2	PARP2
PARP3	PARP5A	PARP3
PARP5A (TNK1)	PARP5B	PARP5A
PARP5B (TNK2)		PARP5B
PARP6		PARP11
PARP7		
PARP10		
PARP11		
PARP12		
PARP14		
PARP15		
PARP15-FL		



Learn more about Choosing the Right Assay for Poly-ADP Ribose Polymerase (PARP) in our eBook.

Detection of Cellular PARylation

LysA™ Universal PARylation Assay Kit (#82123) is a sandwich ELISA-based kit designed to analyze the level of total poly ADP-ribosylation (PARylation) present in cellular extracts. The kit contains all the reagents necessary to measure PARylation levels in cell extracts, including a PAR standard for quantitative measurements.

Applications

The assay is *quantitative* and detects differences in protein PARylation levels resulting, for example, from inducing the DNA damage response, or from exposure to PARP inhibitors and inhibitors of PAR erasers such as PARG (poly (ADP-ribose) glycohydrolase).

Principle of the Assay

A 96-well plate is coated with an anti-PAR antibody recognizing PARylated chains. Lysates from cells are added to the coated wells, and PAR (PARylated proteins) present in the cell lysates are captured by the antibody. This is followed by an incubation with an anti-PAR detection antibody, then a secondary HRP-conjugated antibody. Addition of a chemiluminescent HRP substrate provides a luminescence signal that directly correlates with the amount of PAR present in the cell extracts.

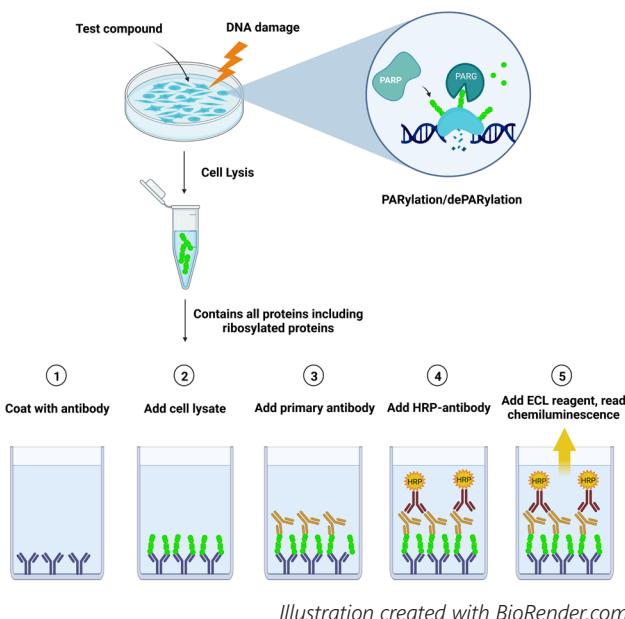
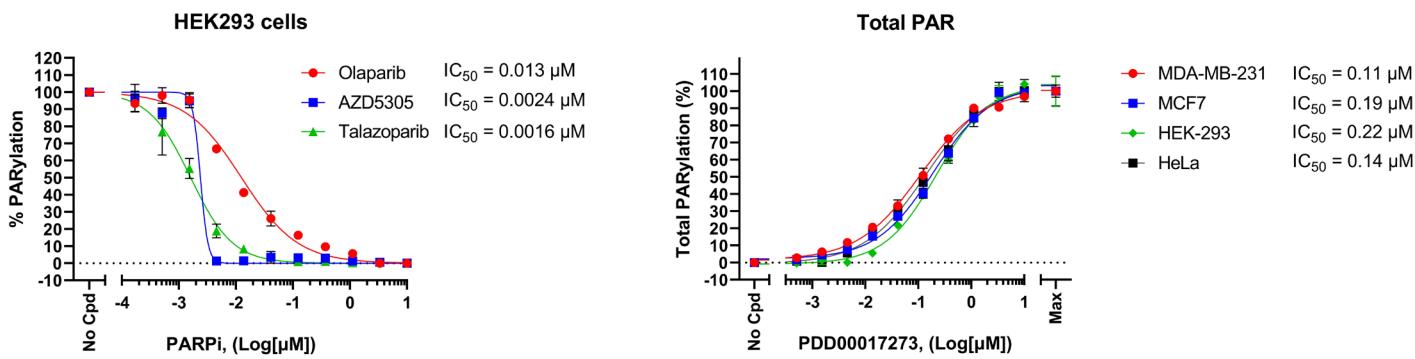


Illustration created with BioRender.com

Advantages

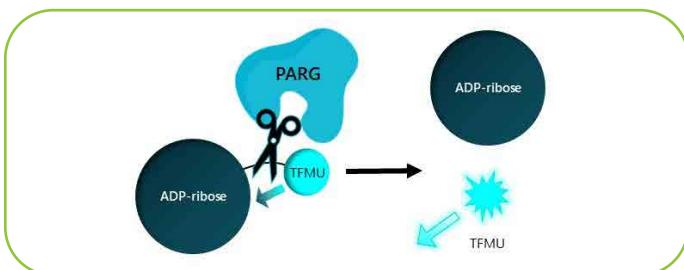
- Measures PARylation from lysates of cells treated with PARP or PARG inhibitors of interest
- Sensitivity ≥ 100 pM PAR
- Absolute quantification of PAR levels enabled by inclusion of a PAR standard
- Provided with detailed protocols and examples of cellular experiments
- Accessory reagents for cell lysis available, including reagents optimized for this assay kit



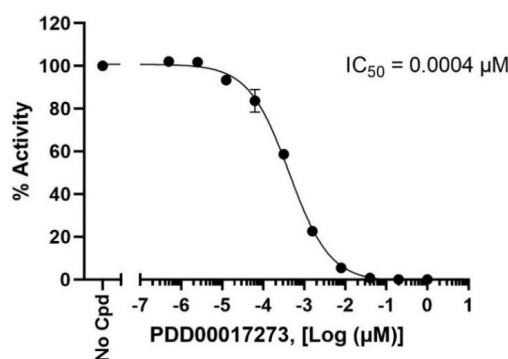
Left: Effect of several PARP inhibitors on stress-induced PARylation in HEK293 cells. **Right:** Effect of PARG inhibitor PDD00017273 on stress-induced PARylation in various cell lines. Cells were treated with increasing concentrations of inhibitor for 105 minutes and hydrogen peroxide was added for an additional 15 minutes to induce DNA damage. The reaction was stopped and cell extracts were collected. Lysates were analyzed using LysA™ Universal PARylation Assay Kit. Results are expressed as percent of total PARylation in which maximum PARylation is set at 100%.

Other Biochemical Assay Kits

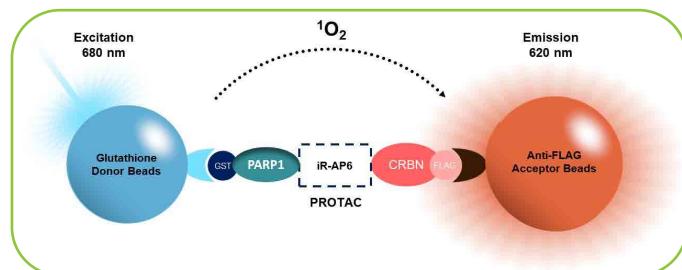
Accelerate your discoveries with optimized, validated screening & profiling assay kits.



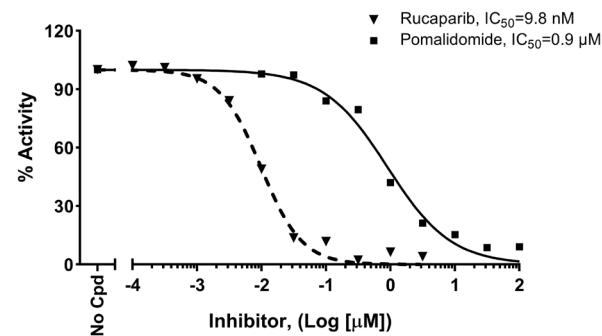
PARG Fluorogenic Assay Kit: High-throughput, homogeneous. Poly (ADP-ribose) glycohydrolase (PARG) is incubated with a fluorogenic ADP-ribose substrate in which the fluorophore is quenched. PARG-mediated hydrolysis of the ribose substrate releases fluorescence.



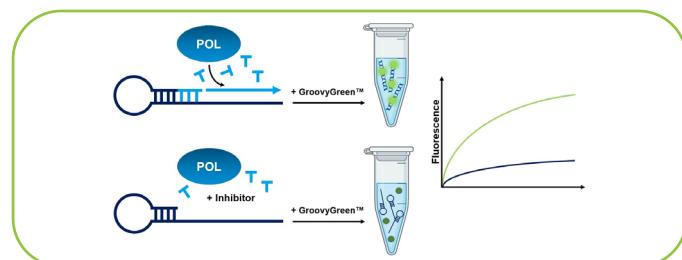
PARG activity was measured in the presence of increasing concentrations of PDD00017273.



PROTAC™ Optimization Assay Kits: Robust, homogeneous AlphaLISA® assay. A degrader of interest interacts with the target and the E3 ligase, bringing them in proximity. Target binds to a donor bead, while E3 binds to the acceptor bead, leading to emission of fluorescence.



Inhibition of Rucaparib-AP6-mediated interaction of cereblon with PARP1 by PARP inhibitor rucaparib or cereblon inhibitor pomalidomide.

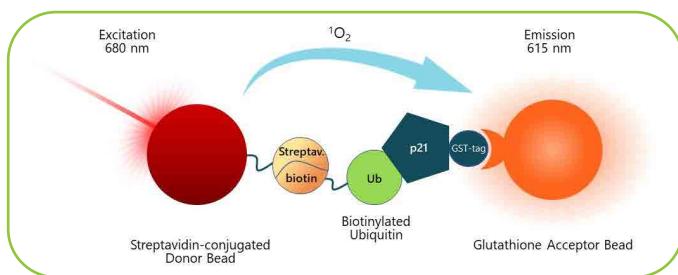


WRN Helicase Assay Kit: Fluorogenic, homogeneous assay in which the DNA probe is conjugated on one strand with the TAMRA (tetramethylrhodamine) fluorophore, and on the other strand with a Black Hole Quencher. WRN unwinds the two strands, releasing TAMRA from the quencher. WRN activity, therefore, results in a proportional increase in fluorescence.

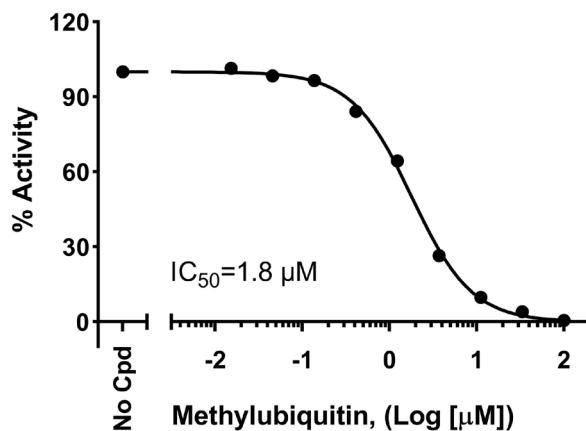
DNA Polymerase (POL) Assay Kits: Fluorogenic, homogeneous assays used for the screening of small molecule libraries or for measuring the potency of POL inhibitors. These assays quantify the enzymatic activity of DNA polymerase β (POLB), polymerase γ (POLG1), or polymerase θ (POLQ).

Ubiquitination and Deubiquitination Assays

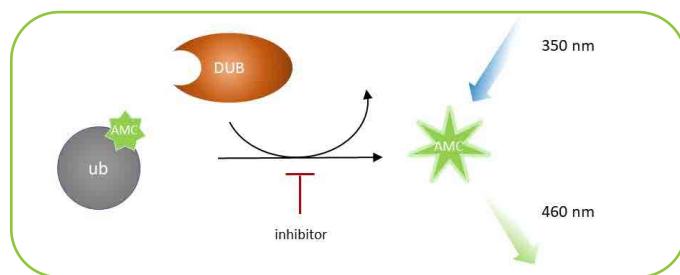
The efficient functioning of DDR pathways safeguards cells against genomic instability. Conversely, impaired DDR can result in unrepaired DNA lesions, leading to genomic mutations that may cause diseases such as cancer. Proper regulation of DDR processes is crucial to maintain genomic stability and overall health. Ubiquitination and deubiquitination play a major role in DDR by controlling the activity, localization, and stability of DDR proteins. Therefore, ubiquitin-mediated regulation of DDR has emerged as a significant area of focus in DDR research. Notably, deubiquitinases present attractive targets for small-molecule drugs due to their well-defined catalytic residues.



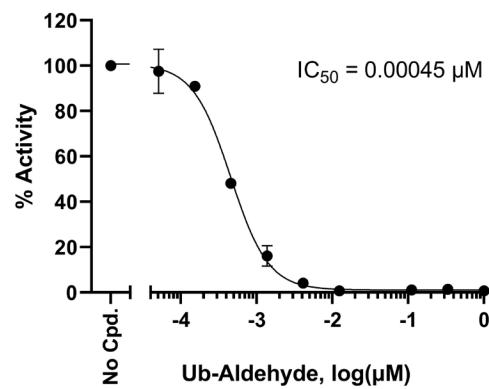
AlphaLISA® Homogeneous Assay: E3-driven p21 ubiquitination assay kit. E1 and E2 enzymes are incubated with the E3 complex and with the target protein p21 (GST-tag) in the presence of biotin-conjugated ubiquitin and ATP. Ubiquitination of p21 occurs in a multistep ubiquitin transfer from E1 to E2 to E3, and E3-mediated conjugation of ubiquitin to p21. Glutathione-acceptor beads are then added, followed by streptavidin-conjugated donor beads, and Alpha-counts are measured. The increase in signal is proportional to the mono- or poly-ubiquitination of p21.



DCAF11-mediated ubiquitination of p21 was measured in the presence of increasing concentrations of inhibitor methylubiquitin.



Deubiquitinase Fluorogenic Homogeneous Assays: Ubiquitin-AMC (7-amido-4-methyl coumarin) is a fluorogenic substrate for deubiquitinases (DUB). In the conjugated form, the energy emitted from fluorochrome AMC is quenched. Upon proteolysis of ubiquitin, AMC is no longer quenched and emits fluorescence. The increase in fluorescence is proportional to the DUB activity.



USP7 activity was measured in the presence of increasing concentrations of Ub-Aldehyde.

BPS Bioscience provides a complete portfolio of ubiquitination / deubiquitination enzymes relevant to DDR, including several USP proteins, A20, E3-ligase complexes, cereblon and CHL intrachain assay kits, TRAF6 and MDM2 products, and more.

Protein Products

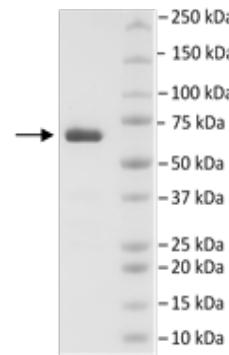
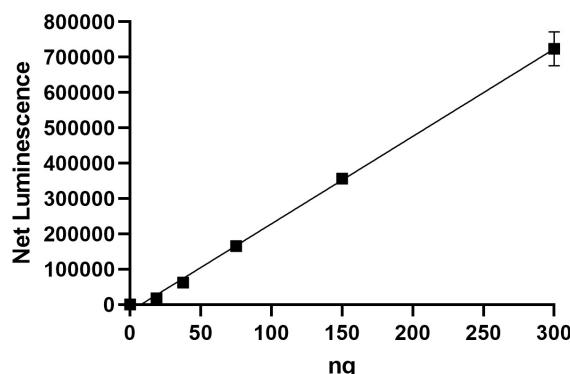
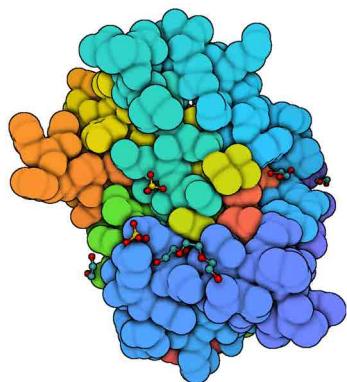
BPS Bioscience specializes in manufacturing bioactive enzymes and protein complexes, offering over 2000 proteins critical for drug discovery programs. Our DNA replication and DDR protein portfolio comprises DNA methylases, de-ubiquitinases, active kinases involved in repair and in cell cycle progression, and one of the most comprehensive panel of PARP proteins on the market.

HiP™ Proteins (High Purity, Low Aggregation)

- >90% purity
- <10% aggregation guaranteed by HPLC

Bulk Production and Customization

Proteins customized to your specifications: full-length or partial, tag of choice, mutation, activity testing. Size, bulk order, and custom formulation are available.



Left: Structure of human PARP14 in complex with a compound- PDB 6WE3 (created with bioRender.com). Middle: PARP14 enzymatic activity as a function of enzyme amount. Right: PARP14 purity visualized by Coomassie staining following SDS-PAGE electrophoresis.

Our purified, tagged recombinant enzymes are suitable for assay development and for inhibitor screening & profiling across enzyme families (IC_{50} determination). Purity level assessment and quality control of enzymatic activity are performed for each lot.

Inhibitors and DNA Damage Inducers

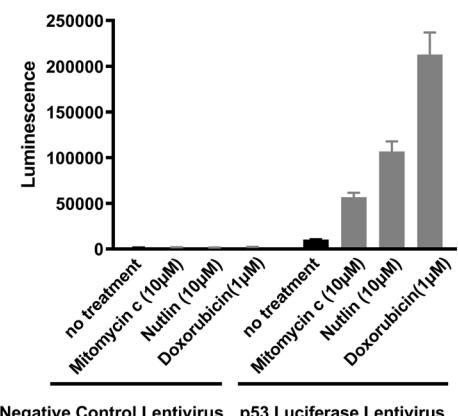
We provide inhibitors for PARP, cell cycle kinases, and other DDR enzymes for use as internal controls. Activators are also available. A sampling set of 8 PARP inhibitors (#78318) includes broad-specificity olaparib, niraparib, rucaparib, talazoparib, velaparib, and more selective inhibitors AZD5305 (PARP1), XAV939 (PARP5A/B), and RBN-2397 (PARP7). These inhibitors have been used to optimize and validate assay kits and can be used as controls.

DNA damage agents cisplatin, mitomycin C, and streptozotocin are used to study DDR pathways and synthetic lethality.

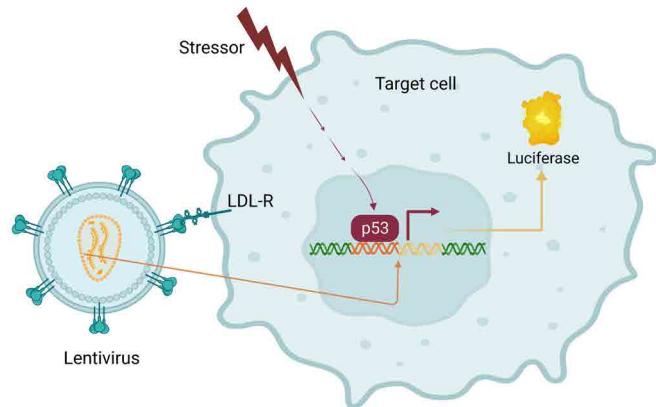
Lentiviruses

Conditional reporter cell systems are versatile and provide elegant models for measuring signaling activity in a straightforward and quantitative manner. To accelerate the development of your ideal reporter cells, BPS Bioscience offers reporter lentiviruses ready to transduce the desired cell lines. Replication-incompetent, VSV-G pseudotyped lentiviruses are safe and, in most countries, require only a Biosafety Level 2 facility.

For example, off-the-shelf p53 Luciferase Reporter Lentiviruses transduce a firefly luciferase gene driven by p53 response elements located upstream of a minimal TATA promoter. An antibiotic selection gene (puromycin) allows for the selection of stable clones. After transduction, p53-regulated reporter expression in the target cells can be monitored by measuring luciferase activity.



p53-dependent luciferase activity in transduced HCT116 cells.



Created with BioRender.com

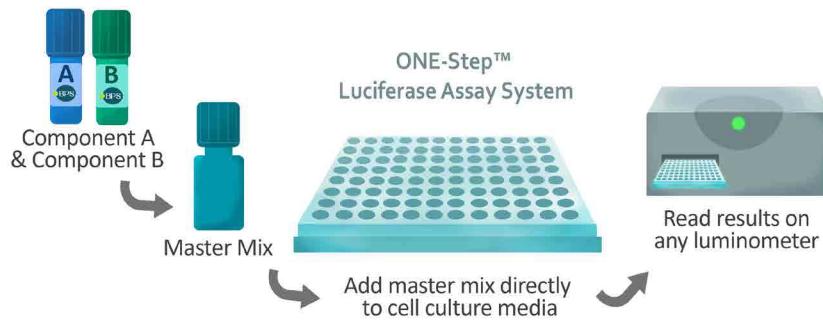
Advantages

- High efficiency of transduction
- Low cellular toxicity
- Stable expression of transgene
- Infect various mammalian cell types
- Transduce dividing and non-dividing cells
- Insert DNA of up to 10 kb

ONE-Step™ Luciferase Assay System

For simple, sensitive quantitation of luciferase activity in mammalian cells, try the ONE-Step™ Luciferase Assay System (#60690), optimized for cell lysis and measurement of firefly luciferase activity in one simple step.

Highly sensitive yet stable signal (for over an hour) permits flexible incubation times. The reagent is compatible with most common cell culture media containing up to 10% serum and phenol red.



BPS Bioscience

Custom Services

In addition to custom protein and custom assay development services, all our biochemical and cell-based assays are available as screening & profiling services. BPS Bioscience services are a fast and reliable way to screen or characterize small molecule inhibitors for PARP, PARG, WRN, POL, kinases, CDK complexes, and other enzymes. Our team of experts along with our broad assay portfolio makes it easy to:

- Screen or titrate compounds
- Select from IC_{50} determination or single point concentrations
- Perform follow up studies using the same proteins manufactured in house
- Have questions answered and receive project guidance in a time-efficient manner
- Receive end-to-end customization from protein production to assay development to compound screening

Our Deliverables to You

Detailed Results



Extensive report with raw and analyzed data, graphs, and detailed protocols. Typically includes positive controls for inhibition.

Platform Options



Choose the format that works best for your experiment or perform orthogonal testing on multiple platforms to validate your results.

Quality & Consistency



Proteins and enzymes synthesized and QC'd in-house to ensure the highest level of inter- and intra-assay consistency.

Fast Turnaround



Receive results within weeks after our receipt of your compounds.

Extensive Selection



Choose from over 45 in-house developed assays, including unique assays and enzyme family panels.

Our panel of PARP family proteins allows IC_{50} determinations across family members, providing useful information about the selectivity of the inhibitor being developed. For example, Wang *et al.* titrated pamiparib against individual PARP members using BPS Bioscience's assay kits and services (Wang H. *et al.*, J. Med. Chem., 2020, 63: 15541-15563). Pamiparib is an oral PARP1/2 inhibitor with demonstrated trapping ability and strong anti-tumor activity. As shown in this table, it is highly selective of PARP1/2.

	PARP1	PARP2	PARP3	PARP5A	PARP5B	PARP6	PARP7	PARP8	PARP10	PARP11	PARP12
Pamiparib IC_{50} (nM)	1.3	0.92	68	230	140	>100,000	11,000	8,400	11,000	2,700	2,400

Antibodies, Assay Kit Components, Biochemical Assay Kits | Product Listing

Antibodies	Catalog#	Biochemical Assay Kits	Catalog#
Anti-MeCP2 polyclonal antibody	25304	DUB-Freedom™ Inhibitor Screening Assay Kit	78895
Assay Kit Components	Catalog#		
Activated DNA	80605	FTO Chemiluminescent Assay Kit	79344
ADP-Ribosylation Cycle Inhibitor Mix	82130	HSP70 Assay Kit	78414
Biochemical Assay Kits	Catalog#		
2-Step DNase I Assay Kit	82213	HSP90 β (C-Terminal Domain) TR-FRET Kit	50262
ALKBH5 Chemiluminescent Assay Kit	79659	HSP90 β (N-terminal) Assay Kit	50299
ARH3 Fluorogenic Assay Kit	82158	HSP90 β N-Terminal Domain Assay Kit	50294
CDK1 Assay Kit	79597	HSP90 α (C-Terminal Domain) TR-FRET Kit	50261
CDK12/Cyclin K Kinase Assay Kit	78298	HSP90 α (C-Terminal) Inhibitor Screening Assay Kit	50317
CDK2 Assay Kit	79599	HSP90 α (N-terminal) Assay Kit	50298
CDK4 Assay Kit	79674	HSP90 α C-Terminal Domain TR-FRET Assay Kit	50289
CDK5 Assay Kit	79600	HSP90 α N-Terminal Domain Assay Kit	50293
CDK6/CyclinD3 Kinase Assay Kit	78395	HSP90 β (C-terminal) Inhibitor Screening Kit	50314
CDK7 Assay Kit	79603	L3MBTL1 Inhibitor Screening Assay Kit	55100
CDK9/CyclinT Kinase Assay Kit	79628	L3MBTL1 TR-FRET Assay Kit	55200
Cereblon Intrachain TR-FRET Assay Kit	78301	LysA™ Universal PARylation Assay Kit	82123
Chemi-Verse™ AMPK (A1/B1/G1) Kinase Assay Kit	82101	MCL-1 TR-FRET Assay Kit	79506
Chemi-Verse™ Aurora Kinase A Assay Kit	82095	MCL-1 TR-FRET Assay Kit (Mouse)	79928
Chemi-Verse™ Aurora Kinase B Assay Kit	82094	MCL-1 TR-FRET Assay Kit (Rat)	78804
Chemi-Verse™ CDK14/Cyclin Y Kinase Assay Kit	78889	MDM2 Intrachain TR-FRET Assay Kit	78302
Chemi-Verse™ CDK16/Cyclin Y Kinase Assay Kit	78887	MDM2 TR-FRET Assay Kit	79773
Chemi-Verse™ CDK17/Cyclin Y Kinase Assay Kit	78885	MDM2-Driven p53 Ubiquitination Assay Kit	82179
Chemi-Verse™ CDK18/Cyclin Y Kinase Assay Kit	78888	NEK6 Kinase Assay Kit	79992
Chemi-Verse™ CDK3/CyclinE1 Kinase Assay Kit	78884	NEK7 Kinase Assay Kit	78850
Chemi-Verse™ CDK8/Cyclin C Kinase Assay Kit	78886	PARG Fluorogenic Assay Kit	78858
Chemi-Verse™ Kinase Aurora C Assay Kit	82096	PARP1 Chemiluminescent Assay Kit	80551
Chemi-Verse™ PARP7 Assay Kit	78814	PARP1 Chemiluminescent Assay Kit (384-well)	80569
CHK1 Kinase Assay Kit	78418	PARP1 Colorimetric Assay Kit	80580
CHK2 Kinase Assay Kit	78421	PARP1 Homogenous Assay Kit	80560
ChoosE2-Opti™ Intrachain TR-FRET Assay Kit	78561	PARP10 Chemiluminescent Assay Kit	80561
ChoosE3-Freedom™ Intrachain TR-FRET Assay Kit	78560	PARP11 Chemiluminescent Assay Kit	80561
DCAF11 Intrachain TR-FRET Assay Kit	78542	PARP12 Chemiluminescent Assay Kit	78492
DNA Polymerase β Assay Kit	82099	PARP14 Chemiluminescent Assay Kit	78504
DNA Polymerase γ Assay Kit	82098	PARP15 Chemiluminescent Assay Kit	80568
DNA Polymerase θ Assay Kit	82107	PARP15-FL Chemiluminescent Assay Kit	80567
		PARP2 Chemiluminescent Assay Kit	78596
		PARP2 Colorimetric Assay Kit	80552
		PARP2 Homogenous Assay Kit	80581
		PARP2 Homogenous Assay Kit	78572

Biochemical Assay Kits	Catalog #	Inhibitors/Activators	Catalog #
PARP3 Chemiluminescent Assay Kit	80553	A-966492	27601-1
PARP3 Homogenous Assay Kit	78491	A-966492	27601-2
PARP6 Chemiluminescent Assay Kit	80556	A-966492	27601-3
PARP7 Chemiluminescent Assay Kit	79729	ABT-888 (Veliparib)	27101
PARPtrap™ Assay Kit for PARP1	80584	AG-14361	27602-1
PARPtrap™ Assay Kit for PARP2	78296	AG-14361	27602-2
PARPtrap™ Combo Assay Kit for PARP1 and PARP2	78317	AG-14361	27602-3
PRDM9 Chemiluminescent Assay Kit	79625	AZD2281 (Olaparib)	27003
PRMT5 Chemiluminescent Assay Kit	52002L	AZD2461	27606-1
PRMT5 Chemiluminescent Assay Kit	52073	AZD2461	27606-2
PRMT5 Homogeneous Assay Kit	52052	BMN 673	27609-1
PRMT5 TR-FRET Assay Kit	52171	BMN 673	27609-2
PROTAC® Optimization Kit for CDK Kinase-Cereblon Binding	79924	BMN-673 8R,9S	27610-1
PROTAC® Optimization Kit for PARP1-Cereblon Binding	78441	BMN-673 8R,9S	27610-2
TNKS1 (PARP5A) Chemiluminescent Assay Kit	78405	Cisplatin	27744
TNKS1 (PARP5A) Colorimetric Assay Kit	78576	DPQ	27311
TNKS1 Homogenous Assay Kit	78489	EPZ015666	79043-1
TNKS2 (PARP5B) Chemiluminescent Assay Kit	78406	EPZ015666	79043-2
TNKS2 (PARP5B) Colorimetric Assay Kit	78577	Ganetespib (STA-9090)	27750-1
TNKS2 Homogenous Assay Kit	78490	Ganetespib (STA-9090)	27750-2
TRAF6 Intrachain TR-FRET Assay Kit	78598	IPI-504 (Retaspimycin hydrochloride)	27753-1
TRAF6 TR-FRET Assay Kit	78851	IPI-504 (Retaspimycin hydrochloride)	27753-2
UBCH13 TR-FRET Assay Kit	79741	JW 55	27633-1
USP1 Inhibitor Screening Assay Kit	78831	JW 55	27633-2
USP7 Inhibitor Screening Assay Kit	79256	ME0328	27634-1
VHL Intrachain TR-FRET Assay Kit	78305	ME0328	27634-2
Wee1 Kinase Assay Kit	79909	Mitomycin C	27763
WRN Helicase Activity Assay Kit	78852	MK-1775	82196
		Novobiocin	27501
Buffers	Catalog #		
10x PARP Assay Buffer	80602	NU 7026	27312
3x HSP90 Assay Buffer 2	50324	NVP-BEP800	27766-1
5x HSP90 Assay Buffer 1	50311	NVP-BEP800	27766-2
		P005091	27766-3
			27767-1
Inhibitors/Activators	Catalog #		
1,5-Isoquinolinediol	27310	PJ34	27041
3-aminobenzamide	79888	Rucaparib (AG-014699,PF-01367338)	27647-1
A-769662	27057	Rucaparib (AG-014699,PF-01367338)	27647-2

Inhibitors/Activators	Catalog #	Proteins	Catalog #
Rucaparib (AG-014699,PF-01367338)	27647-3	AMPK (A2/B2/G1), His-tags	40026
Set of PARP Inhibitors (8 x 50 µl)	78318	AMPK (A2/B2/G2), His-tag	40706
Streptozocin (U-9889)	27656-1	AMPK (A2/B2/G2), His-tags	40027
Streptozocin (U-9889)	27656-2	ATF2, GST-Tag	40520
Tankyrase Inhibitors (TNKS) 22	27658	ATM, GST-tag	101486
Tankyrase Inhibitors (TNKS) 49	27659	ATR, GST-Tag	101485
UNC1215	27406	Aurora A Protein Kinase, His-Tag (HEK293-derived)	100112
UNC1215	27405	Aurora A Protein Kinase, His-Tag (Sf9-derived)	40004
UPF 1069	27665-1	AURORA C, GST-tag	40178
UPF 1069	27665-2	Aurora Kinase B, GST-Tag, His-Tag	40002
VER 155008	27777-1	Bap1, His-tag	81083
VER 155008	27777-2	CDK1/CyclinA2, GST-Tag	40100
XAV939	27100	CDK1/CyclinB1, GST-Tag	40454
XL-888	27781-1	CDK11A/CyclinD3, GST-tags	100595
XL-888	27781-2	CDK12 (696-1082)/CyclinK, GST-Tags,	100998
XL-888	27781-3	CDK12/Cyclin K, GST-Tags	101235
		CDK13/Cyclin K, GST-Tags	101128
Lentiviruses	Catalog #		
ATF6 Luciferase Reporter Lentivirus (ATF6 Pathway)	78667	CDK14/Cyclin Y, GST-Tag	100602
EGR1 Promoter Luciferase Reporter Lentivirus	78664	CDK16/Cyclin Y, GST-tags	100604
p53 Luciferase Reporter Lentivirus	78666	CDK17/Cyclin Y, GST-tags	100606
		CDK18/Cyclin Y, GST-tags	100608
		CDK19/Cyclin C, GST-tags	100593
Proteins	Catalog #		
A20, FLAG-tag (Sf9-derived)	80394	CDK2 (no tag)/CyclinA2, His-GST-tags	41101
A20, His tag, FLAG-tag (Sf9-derived)	80408	CDK2/CyclinA2, GST-tag	40101
A20, His-tag (E. coli-derived)	80393	CDK2/CyclinE1, GST-tag	40102
ADPRS, His-Tag	101852	CDK20, GST-Tag (Mouse)	100609
ALKBH5, FLAG-Tag	100057	CDK3/CyclinE1, GST-tag	40103
AMPK (A1/B1/G1), His-tags	40025	CDK4(EE,T172A)/Cyclin D1, His-tag	40094
AMPK (A1/B1/G2), His-tag	40701	CDK4, FLAG-Tag	100052
AMPK (A1/B1/G2), His-tags	40021	CDK4/CyclinD3, GST-His-Tag	40104
AMPK (A1/B1/G3), His-tag	40702	CDK5/p25, GST-tag	40105
AMPK (A1/B1/G3), His-tags	40022	CDK5/p35, GST-tag	40095
AMPK (A1/B2/G1), His-tag	40703	CDK6, His-Tag	100031
AMPK (A1/B2/G1), His-tags	40023	CDK6/CyclinD1, His-tag, GST-tag	40097
AMPK (A2/ B1/G1), His-tag	40704	CDK6/CyclinD3, His-tags	40206
AMPK (A2/B1/G1), His-tags	40024	CDK7/CyclinH1/MNAT1, His-tags	40098
AMPK (A2/B2/G1), His-tag	40705	CDK8/Cyclin C, GST-tags	100433
		CDK9/CyclinK, GST-tag	40106

Proteins	Catalog #	Proteins	Catalog #
CDK9/CyclinT1, GST-Tag	40307	NEK6, His-tag	40014
Cereblon/DDB1/Cul4A/Rbx1 Complex	100329	NEK7, GST-tag	40141
CHK1, GST-tag	40039	NEK7, His-Tag	100476
CHK2, His-tag	40040	NEK9, GST-tag	40142
CUL3/Rbx1, GST-tag	80409	NPM1, His-Tag	102057
DNA Polymerase β (POLB), His-tag	21000	Otub1, His-tag	81088
DNA Polymerase γ (POLG), His-FLAG-Tag	21001	Otub2, His-tag	81089
DNA Polymerase θ (POLQ), His-Tag, SUMO-Tag	101945	OTUD6B, His-FLAG-tags	80407
FTO, His-Tag (Sf9 derived)	79480	p21, GST-Tag	101584
FTO, His-Tag	79306	p53 (Y220C), GST-Tag	101610
Histone Mixture (5X), His-tag	52029	p53, FLAG-Tag	100412
HMGB1, Avi-His-Tag	79082	p53, GST-Tag	40511
HMGB1, Avi-His-Tag, Biotin-labeled	79007	PARG, His-Tag	101726
Hop/STIP1, FLAG-tag	50322	PARP1, FLAG-Avi-tag	80521
HSP40, His-tag	50285	PARP1, GST-tag	80501
HSP70, His-Tag	50287	PARP1, GST-Tag, PAR-Labeled	101774
HSP90 α (C-terminal), Biotin-Labeled, His-Tag, Avi-Tag	50316	PARP10, FLAG-Strep-Tag	80522
HSP90 α , His-Avi-Tag, Biotin-labeled (Mouse)	100751	PARP11, GST-Tag, His-Tag	80511
HSP90 α , His-tag	50290	PARP12, His-GST-Tag	80513
HSP90 β (C-terminal), Biotin-Labeled, His-Tag, Avi-Tag	50313	PARP14, His-GST-Tag	80514
HSP90 β , His-tag	50292	PARP15, GST-tag	80517
L3MBTL1, GST-tag	55000	PARP2, GST-tag	80502
L3MBTL1, His-tag	55002	PARP3, GST-tag	80503
MCL-1 His-Tag (Mouse)	100637	PARP4, FLAG-Tag	101690
MCL1, His-Tag (Dog)	101305	PARP4, His-GST-Tag	11394
MCL1, His-Tag (Guinea Pig)	101311	PARP6, GST-Tag	80506
MCL1, His-Tag (Rabbit)	101310	PARP7, FLAG-Tag	80527
MCL1, His-Tag (Rat)	101299	PARP9, GST-tag, His-tag	80509
MCL1, His-Tag	40742	PLK1 Polo Box Domain, GST-Tag	50301
MDM2, GST-tag	100409	PLK1, His-tag	40033
MECP2, GST-tag	50250	PLK2, GST-tag	40034
Metnase (SETMAR), FLAG-tag	51018	PLK3 Polo Box Domain, MBP-tag, His-tag	50302
MGMT, His-Tag	101602	PLK3, His-Tag	40035
Mouse AURORA A, GST-tag	40177	PLK4, GST-tag	40236
mTOR/Raptor/MLST8 Complex, FLAG-Tag, His-Tag (Human)	40300	PRDM9, GST-Tag	100078
NEK11, GST-tag	40139	PRMT5, FLAG-Avi-Tag, Biotin-Labeled	79191
NEK2	40009	PRMT5/MEP50, Biotin-Labeled	52102
NEK3, GST-tag	40140	PRMT5/MEP50, FLAG-Tag, His-Tag (HEK293-derived)	51045

Proteins	Catalog#
PRMT5/MEP50, FLAG-Tag, His-Tag (Sf9-derived)	51048
Rbx1/Cul4B/Dcaf11/Ddb1 Complex	101495
Rbx1/CUL4B/DDB1/DCAF15/DDA1 Complex	101497
Sestrin 1, FLAG-tag	50284
Sestrin 2, FLAG-Tag	50286
SMARCA2, His-Tag	101801
Tankyrase 1 (PARP5A), GST-Tag	80504
Tankyrase 2 (PARP5B) [849-1166], GST-tag	80515
Tankyrase 2 (PARP5B), GST-Tag	80505
TRAF6 (D57K), GST-Tag	101598
TRAF6, GST-Tag	101597
UbcH13 (UBE2N), His-tag	80323
UCH-L5, SUMO-His-tags	81099
UHRF1 (108-286), GST-tag	55003
UHRF1 (108-286), His-tag	55004
UHRF1, His-FLAG-Tags	55001
USP10, FLAG-tag	80360
USP7, His-FLAG-Tags	80395
USP9X, His-tag, FLAG-tag	100188
VHL/CUL2/ELOB/ELOC/RBX1 Complex	100373
Wee1, FLAG-Tag	100154
Wee1, GST-Th-Tag	40412
WRN, GST-Tag	101264
Yod1, His-tag	81104



FIND A TRUSTED PARTNER FOR YOUR NEXT PROJECT



Ordering Information
orders@bpsbioscience.com



Technical Support
support@bpsbioscience.com



US Sales Support
sales-team@bpsbioscience.com



International Sales Support
international@bpsbioscience.com

BPS Bioscience, Inc.
6405 Mira Mesa Blvd, Suite 100
San Diego, CA 92121
Tel: 858-202-1401

bpsbioscience.com

