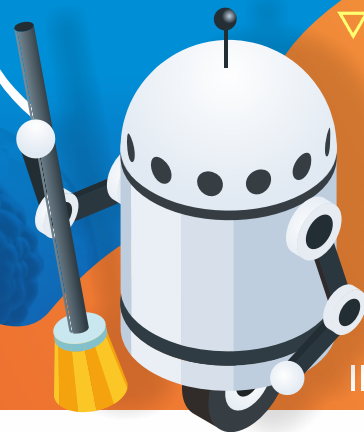


# 細胞的掃地機器人

## Ubiquitin-Proteasome System & PROTACs Research

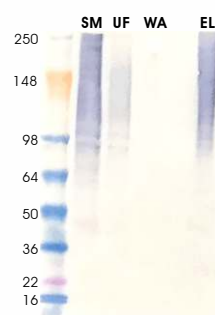
- 泛素化蛋白質純化 · 試管內泛素化反應
- 泛素化蛋白質偵測 · 蛋白酶體活性分析
- PROTACs 藥物篩選平台：HTRF / ALPHA



### 泛素化蛋白質純化 (Ubiquitinated/SUMOylated Protein Isolation)

## UBIQAPTURE-Q® kit

- 高親和性與結合能力：有效純化 Mono- 與 Poly-ubiquitinated 蛋白質。
- 適用多種樣本類型：除 Cell/tissue lysates 以外，亦可適用在 in vitro ubiquitylation 的反應產物純化。
- 配件齊全：隨附 Ubiquitylated-protein lysate、HRP-conjugated anti-ubiquitin Ab，可分別作為實驗對照組和 Western blot 偵測。
- 眾多文獻採用，品質深受肯定
  - *Front Immunol.* 2021 Jan 26;11:616141. PMID: [33574820](#)
  - *Nucleic Acids Res.* 2020 Dec 2;48(21):12085. PMID: [33166399](#)
  - *Nat Commun.* 2020 Apr 28;11(1):2056. PMID: [32345963](#)



Western blot analysis of ubiquitin enrichment of lysate derived ubiquitylated proteins. All fractions were detected by western blotting using the provided ubiquitin-conjugate specific HRP-linked antibody.

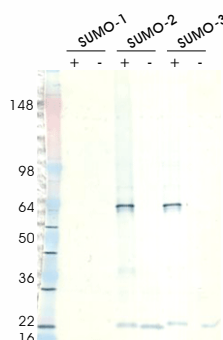
SM: Starting Material  
UF: Unbound Fraction  
WA: Wash Fraction  
EL: Elution Fraction

產品用途	產品名稱	包裝	貨號
純化泛素化蛋白質 (purify Ubiquitylated proteins)	UBIQAPTURE-Q® kit	20 tests	BML-UW8995A-0001
純化小泛素化蛋白質 (purify SUMOylated proteins)	SUMO-QAPTURE-T® kit	10 tests	BML-UW1000A-0001

### 試管內泛素化反應 (In Vitro Ubiquitination/SUMOylation)

## SUMOylation kit

- 反應快速：1.5 小時內即可完成實驗，大幅領先其他同質產品。
- 流程簡單：僅需四個步驟即可完成 (Mix → Incubate → Quench → Analyze)。
- 最多文獻採用，品質深受肯定
  - *Cell Death Dis.* 2021 Apr 1;12(4):341. PMID: [33795649](#)
  - *PNAS.* 2020 Sep 22;117(38):23588. PMID: [32900933](#)
  - *Sci Adv.* 2020 Mar 25;6(13):eaaz0361. PMID: [32232156](#)



Western blot of SUMOylation assays for control RanGAP1 target protein. Detected by SUMO-2/3, pAb (BML-PW9465).

← RanGAP1-SUMO-2 and RanGAP1-SUMO-3 conjugates

← SUMO-2 and SUMO-3

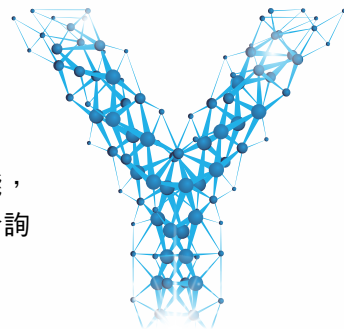
產品用途	產品名稱	包裝	貨號
試管內生成泛素化蛋白質 (in vitro Ubiquitination assay)	Ubiquitylation kit	1 kit	BML-UW9920-0001
試管內生成小泛素化蛋白質 (in vitro SUMOylation assay)	SUMOylation kit	20 tests	BML-UW8955-0001



● 泛素化蛋白質偵測 (Ubiquitinated/SUMOylated Protein Detection)

## Ubiquitination & SUMOylation Antibodies

伯森【泛素化蛋白質偵測抗體】系列產品經眾多文獻採用，具有穩定可靠的品質與效能，能夠提供您高專一性與高再現性的優質實驗結果！以下為您推薦數項明星商品，歡迎洽詢 [伯森業務專員](#) 索取完整產品資訊與技術支援。

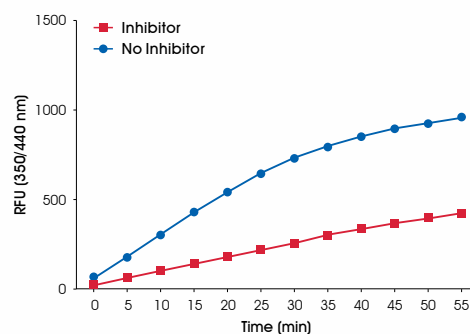


Target	Product	Specificity	Application	Cat. No.
Ubiquitinated protein and Free ubiquitin	Anti-Ubiquitin antibody	Human, Rat	ICC, IHC-P	ab7780
Mono- & Poly-ubiquitinated protein and Free ubiquitin	Anti-Ubiquitin antibody [EPR8830] (Recombinant)	Mouse, Rat, Human	ICC/IF, WB, IHC-P, FCM	ab134953
	Ubiquitin monoclonal antibody (P4D1)	Species independent	IHC, IP, WB	BML-PW0930
Mono- and Poly-ubiquitinated protein	Mono- and polyubiquitylated conjugates recombinant monoclonal antibody (UBCJ2)	Species independent	ELISA, FCM, ICC, WB	ENZ-ABS840
Poly-ubiquitinated protein	Polyubiquitylated conjugates monoclonal antibody (FK1)	Species independent	ELISA, IHC, WB	BML-PW8805
Sumo 1	Anti-Sumo 1 antibody [Y299] (Recombinant) - ChIP Grade	Human, Mouse, Rat	ChIP, WB, IHC-P, ICC/IF, FCM, IP	ab32058
Sumo 2 and Sumo 3	Anti-Sumo 2 + Sumo 3 antibody	Human	ICC/IF, WB, IHC-P	ab3742

● 蛋白酶體活性分析 (Proteasome Activity Assay)

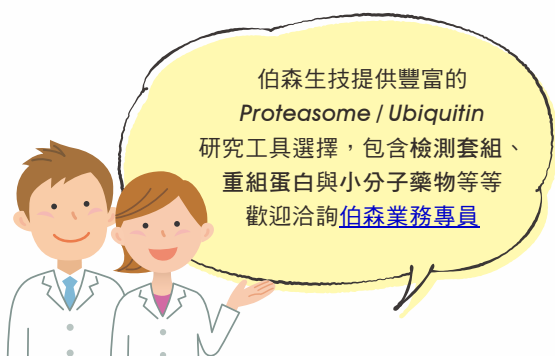
## Proteasome Activity Assay Kit

- 不具放射性：利用 AMC-tagged proteasome substrate 與 Proteasome 進行反應後，即可藉由偵測釋出的螢光素 (free AMC) 推定 Proteasome 活性。
- 配備齊全：Kit 隨附 Jurkat cell lysates 作為 Positive control。
- 眾多文獻採用，品質深受肯定
  - *Cell Rep.* 2021 Apr 13;35(2):108983. PMID: [33852870](#)
  - *Cancer Sci.* 2021 Jan;112(1):133. PMID: [33067904](#)
  - *FASEB J.* 2020 Dec;34(12):16276-16290. PMID: [33078455](#)



Proteasome activity measured by Proteasome Activity Assay Kit (ab107921) in Jurkat lysate.

產品名稱	包裝	貨號
Proteasome Activity Assay Kit	100 tests	ab107921



蛋白質恆定研究工具  
[Proteostasis Research Tools](#)



蛋白質與肽類  
[Proteins and Peptides](#)



小分子化合物  
[Agonists, Activators, Antagonists and Inhibitors](#)

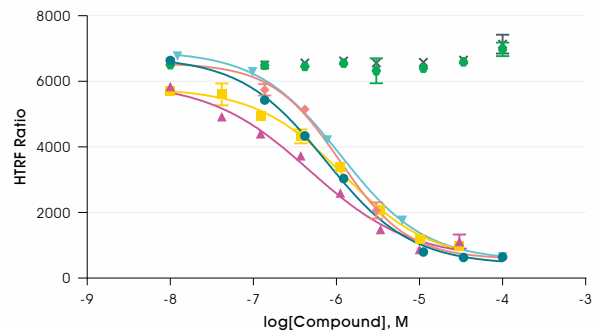
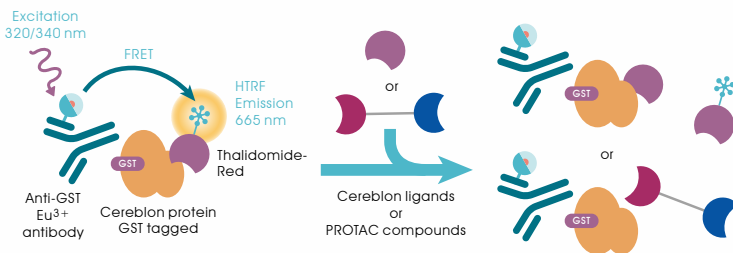
# PROTACs 藥物篩選平台

Cisbio (part of Revvity) 專利開發的生物分子檢測平台—— HTRF 與 ALPHA，可應用於 PROTACs (proteolysis targeting chimeras) 藥物開發，用以檢測 PROTAC 藥物與 E3 連接酶 (E3 ligase) 和目標蛋白 (protein of interest, POI) 的結合，或是進行目標蛋白降解的定量分析。實驗過程無須清洗或分離步驟，具有高靈敏度可節省珍貴樣本用量！多款 Kits 及 Toolbox 可選，滿足研究者彈性設計實驗的需求。

## HTRF Assay

### HTRF 偵測原理與實驗結果 (以 Cereblon binding assay 為例)

**Screening of PROTAC compounds (Cereblon-ligand based).** Various PROTAC compounds, known to be PROTAC Cereblon-ligand based, were added to the assay. BSJ-04-132, BSJ-03-123, dBRD9, TL13112, and MT802 display the right potency in good correlation with the literature. AT1 and CM11, two non-specific compounds, well known to be PROTAC VHL-ligand based, had no effect on the assay.



● dBRD9 IC50 = 0.7  $\mu$ M (BRD9 PROTAC ligand; pomalidomide-based)  
 ● TL13112 IC50 = 1.1  $\mu$ M (ALK PROTAC ligand; pomalidomide-based)  
 ● BSJ-04-132 IC50 = 0.48  $\mu$ M (CDK6 PROTAC ligand; thalidomide-based)  
 ● BSJ-03-123 IC50 = 1.2  $\mu$ M (CDK4 PROTAC ligand; thalidomide-based)  
 ● MT802 IC50 = 1.1  $\mu$ M (BTK PROTAC ligand; pomalidomide-based)  
 ● AT1 (BRD4 PROTAC ligand; VHL-ligand based)  
 x CM11 (VHL PROTAC ligand; VHL-ligand based)

產品名稱	包裝	貨號
Cereblon binding kit	500 tests	64BDCRBPEG

### HTRF Toolbox

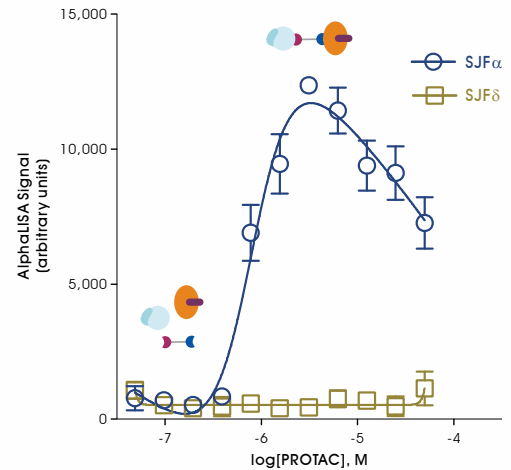
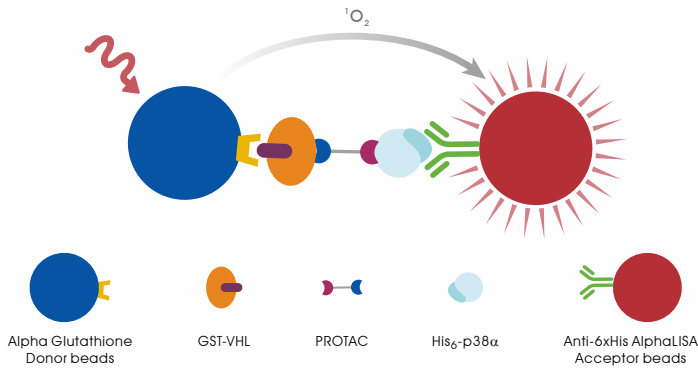
Donor fluorophore	
- Protein A-Eu cryptate	- MAb Anti GST-Tb cryptate
- Streptavidin-Eu cryptate	- MAb Anti HA-Eu cryptate
- Streptavidin-Tb cryptate	- MAb Anti HA-Tb cryptate
- MAb Anti 6HIS-Eu cryptate	- MAb Anti Human Kappa-Eu cryptate
- MAb Anti 6HIS-Eu cryptate Gold	- MAb Anti MBP-Eu cryptate
- MAb Anti 6HIS-Tb cryptate	- MAb Anti MBP-Tb cryptate
- MAb Anti 6HIS-Tb cryptate Gold	- PAb Anti Human IgG-Eu cryptate
- MAb Anti cmcy-Eu cryptate	- PAb Anti Human IgG-Tb cryptate
- MAb Anti cmcy-Tb cryptate	- PAb Anti Mouse IgG-Eu cryptate
- MAb Anti DNP-Eu cryptate	- PAb Anti Mouse IgG-Tb cryptate
- MAb Anti FLAG M2-Eu cryptate	- PAb Anti Rabbit IgG-Eu cryptate
- MAb Anti FLAG M2-Tb cryptate	- PAb Anti Rabbit IgG-Tb cryptate
- MAb Anti GST-Eu cryptate	- Ubiquitin-Eu cryptate

Acceptor fluorophore	
- Protein A-XL665	- MAb Anti GST-XL665
- Streptavidin-d2	- MAb Anti HA-d2
- Streptavidin-XL665	- MAb Anti HA-XL665
- MAb Anti 6HIS-d2	- MAb Anti Human Kappa-d2
- MAb Anti 6HIS-XL665	- MAb Anti MBP-d2
- MAb Anti cmcy-d2	- Pab Anti Human IgG-d2
- MAb Anti cmcy-XL665	- PAb Anti Human IgG-XL665
- MAb Anti DNP-XL665	- Pab Anti Mouse d2
- MAb Anti FLAG M2-d2	- PAb Anti Mouse IgG-XL665
- MAb Anti FLAG M2-XL665	- PAb Anti Rabbit IgG-d2
- MAb Anti GST-d2	- PAb Anti Rabbit IgG-XL665

# ALPHA Assay

## ALPHA 偵測原理與實驗結果 (以 VHL:PROTAC:p38 $\alpha$ ternary complex formation 為例)

**VHL:SJF $\alpha$ :p38 $\alpha$  ternary complex assay.** His-p38 $\alpha$  and GST-VHL were incubated in the presence of increasing concentrations of SJF $\alpha$  and SJF $\delta$  and the extent of ternary complex formation was assessed by AlphaLISA. When incubated with p38 $\alpha$ , a significant p38 $\alpha$ :SJF $\alpha$ :VHL ternary complex could be detected. With SJF $\delta$ , no such ternary complex was detected. © Smith BE, et al. Differential PROTAC substrate specificity dictated by orientation of recruited E3 ligase. *Nat Commun.* 2019 Jan 10;10(1):131. PMID: [30631068](https://pubmed.ncbi.nlm.nih.gov/30631068/)



## ALPHA Toolbox

Donor beads		Acceptor beads		
- Anti-DIG	- Anti-rat IgG	- Anti-6x His	- Anti-human IgG (Fc-specific)	- Anti-V5
- Anti-DNP	- Glutathione (GSH)	- Anti-chicken IgY	- Anti-human IgG1	- Glutathione (GSH)
- Anti-FLAG <sup>®</sup>	- Human IgG (Fc-fragment)	- Anti-c-myc	- Anti-human IgG2 (isotyping)	- Human IgG (Fc-fragment)
- Anti-GFP	- Nickel Chelate	- Anti-DIG	- Anti-human IgG4	- LCA (Lens Culinaris Agglutinin)
- Anti-HRP	- Protein A	- Anti-DNP	- Anti-Maltose-Binding Protein (MBP)	- Nickel Chelate
- Anti-human IgG (Fc-specific)	- Strep Tactin <sup>®</sup>	- Anti-FITC	- Anti-mouse IgG	- Protein A
- Anti-mouse IgG	- Streptavidin	- Anti-FLAG <sup>®</sup>	- Anti-Protein C tag	- Protein G
- Anti-rabbit IgG		- Anti-GFP	- Anti-rabbit IgG	- Protein L
		- Anti-GST	- Anti-rat IgG	- Strep Tactin <sup>®</sup>
		- Anti-HA	- Anti-sheep IgG	- Streptavidin
		- Anti-HRP		

## Product Catalog



PROTAC 藥物研發產品目錄



HTRF 中文產品目錄



ALPHA 中文產品目錄

