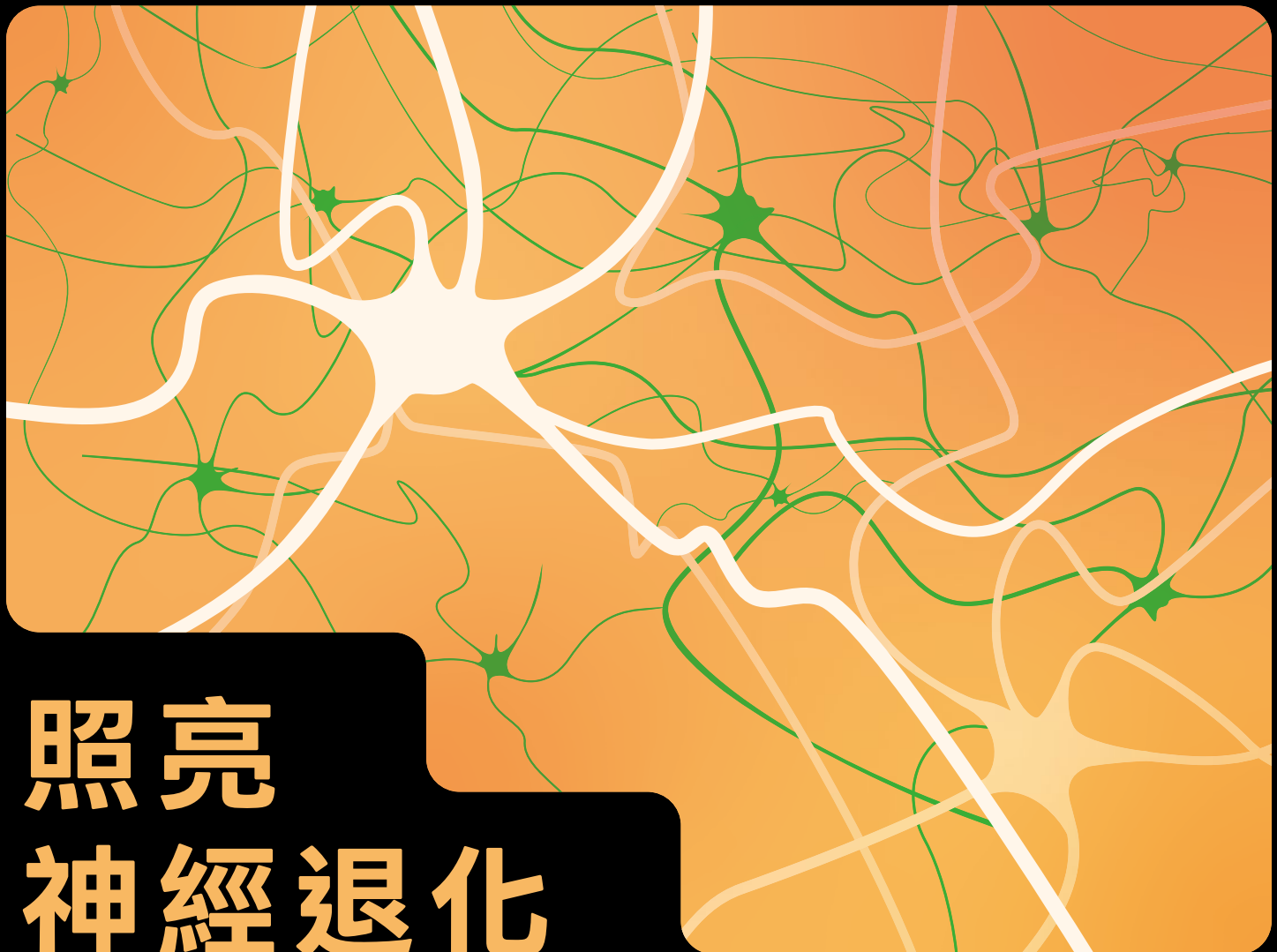




照亮 神經退化 疾病研究之路

Illuminating
Neurodegeneration

Proteomics-Based

Alzheimer's Disease (AD)	2
Parkinson's Disease (PD)	3
Amyotrophic Lateral Sclerosis/Frontotemporal Dementia (ALS/FTD)	4
Huntington's Disease (HD)	5
Multiple Sclerosis (MS)	6
Essential Tools	7

Genomics & Transcriptomics-Based

Neurodegenerative Diseases	8
— PacBio PureTarget	
— Vizgen MERSCOPE Ultra / MERFISH 2.0	

伯森生技整合蛋白體研究試劑、基因體與空間轉錄體分析工具，協助研究人員從蛋白質表現、基因變異到組織中的細胞分布，深入解析神經退化性疾病機制並推進新藥開發。

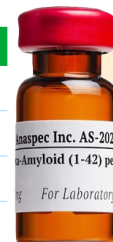


Alzheimer's Disease (AD)

阿茲海默症以類澱粉胜肽 (β -Amyloid, A β) 斑塊堆疊沉積和細胞內 Tau 蛋白過度磷酸化為特徵。伯森整合 β -Amyloid 聚集抑制、定量分析與 Tau 磷酸化動態研究工具，為 AD 藥物開發提供多元的生化與細胞評估平台。

Amyloid Aggregation

Product	Cat#
Beta-Amyloid (1-42)	AS-20276
Thioflavin T β -Amyloid (1-42) Aggregation Kit	AS-72214
Anti-Human β -Amyloid (1-42) Quantitative ELISA Kit	AS-55552
Anti-beta Amyloid 1-42 antibody [mOC98]	ab201061



Beta-Amyloid (1-42)
AS-20276

- $\geq 95\%$ Purity(HPLC)
- 多種螢光標記選擇
- R&D to GMP grade

Tau Pathology

Product	Cat#
Tau (Tau-441), human recombinant	AS-55556
Human Tau ELISA Kit	ab273617
Anti-Tau Alzheimer's Disease antibody [GT-38]	ab246808
Anti-Tau (phospho S396) antibody [E178]	ab32057

Secretase Biology

Product	Cat#
Recombinant Human BACE1 Protein (Active)	ab290084
520 β -Secretase (BACE1) Activity Assay Kit	AS-71144
DAPT, gamma-Secretase inhibitor	ab120633
Anti-Amyloid Precursor Protein antibody [Y188]	ab32136
Anti-Presenilin 1/PS-1 antibody [EP2000Y]	ab76083

Neuroinflammation

Product	Cat#
Human GFAP ELISA Kit	ab288175
Human NEFL ELISA Kit	ab288171
Human TNF alpha ELISA Kit	ab181421
Human TREM2 ELISA Kit	ab224881

Lipid Metabolism

Product	Cat#
Cholesterol Assay Kit - HDL and LDL/VLDL	ab65390
Human Apolipoprotein E ELISA Kit (APOE)	ab108813
Anti-Apolipoprotein E4 antibody [EPR24181-64]	ab279714



更多 AD 研究工具

Parkinson's Disease (PD)

帕金森氏症特徵包括多巴胺能神經元 (Dopaminergic Neuron) 缺失與錯誤折疊的 α -Synuclein 聚集形成的路易體 (Lewy body)。伯森提供 α -Synuclein 聚集與定量篩選、溶小體 (Lysosome) 與粒線體功能分析以及多巴胺能神經元經典抗體，全方位協助您建構 PD 病理研究。



更多 PD 研究工具

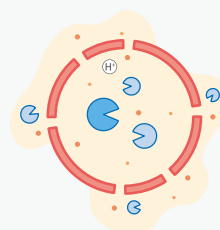
α -Synuclein Aggregation

Product	Cat#
Human recombinant α -Synuclein protein	AS-56081
AlphaLISA Human α -Synuclein Aggregation Kit	PK-ALISU-AASYN
Anti- α -Synuclein (Human) ELISA Kit	AS-55550-H
Anti- α -synuclein antibody [MJFR1]	ab138501



Lysosomal Dysfunction

Product	Cat#
Glucocerebrosidase (GBA) Activity Assay Kit	AS-72259
Anti-GBA antibody [EPR5142]	ab125065
Anti-LAMP1 antibody [H4A3]	ab25630
Anti-RAB7 antibody [EPR7589]	ab137029



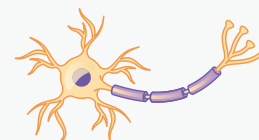
Mitochondrial Dysfunction

Product	Cat#
Anti-PINK1 antibody [MJF-R32-7]	ab300623
Anti-PARK7/DJ1 antibody [EP2815Y]	ab76008
Anti-Parkin antibody [PRK8]	ab77924
Anti-LRRK2 antibody [MJFF2 (c41-2)]	ab133474



Dopaminergic Neuron Markers

Product	Cat#
Anti-Dopamine Transporter antibody [EPR19695]	ab184451
Anti-Tyrosine Hydroxylase antibody [EP1532Y]	ab137869
Anti-Nurr1 antibody [N1404]	ab41917
Anti-LMX1b antibody [EPR24053-161]	ab259926



Presynaptic Neuron

Postsynaptic Neuron

Amyotrophic Lateral Sclerosis/Frontotemporal Dementia (ALS/FTD)

肌萎縮性側索硬化症和額顳葉失智症具有重疊的病理機制，涉及 RNA 失調、蛋白質異常聚集與神經元興奮毒性。伯森精選 TDP-43 聚集定量、C9orf72 檢測抗體與顆粒蛋白前體 (Progranulin, PGRN) 篩選平台，協助您深入 ALS/FTD 治療研究。

藥篩首選

HTRF Human Progranulin Detection Kit | PK-62PROPEG

PGRN 是維持 Lysosome 與微膠細胞 (Microglia) 正常運作的關鍵醣蛋白，其缺乏會直接加劇 TDP-43 異常聚集，是 ALS/FTD 研究與藥物篩選的重要標的。

HTRF 時差性螢光共振能量轉移技術，具備均相免洗與高通量優勢，能大幅簡化實驗流程，為加速 PGRN 藥物研發之關鍵工具。



HTRF 完整介紹

TDP-43 Pathology

Product	Cat#
AlphaLISA Human and Mouse Total TDP-43 Aggregation Kit	PK-ALSU-ATDP43
AlphaLISA Human Total TDP-43 Detection Kit	PK-ALSU-TTDP43
Anti-TDP43 antibody [EPR5810]	ab109535

Glutamate Excitotoxicity

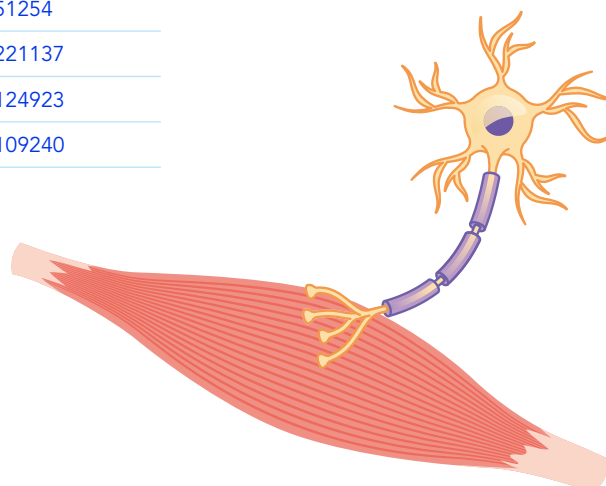
Product	Cat#
Anti-NMDAR1 antibody [EPR2481(2)]	ab109182
Anti-Glutamate Receptor 1 (AMPA subtype) antibody [EPR19522]	ab183797
Anti-VGluT1 antibody [EPR22269]	ab227805

Proteome Homeostasis

Product	Cat#
Superoxide Dismutase Activity Assay Kit (Colorimetric)	ab65354
Anti-Superoxide Dismutase 1 antibody [EP1727Y]	ab51254
Anti-C9orf72 antibody [EPR22021]	ab221137
Anti-TLS/FUS antibody [EPR5812]	ab124923
Anti-VCP antibody [EPR3307(2)]	ab109240



ALS/FTD
研究工具



Huntington's Disease (HD)

亨丁頓舞蹈症由 HTT 基因中 CAG 重複序列異常擴增引起，導致突變亨丁頓蛋白 (mHTT) 聚集引發神經元退化。

伯森提供高靈敏度的 mHTT 與 Total HTT 定量系統，並搭配細胞自噬 (Autophagy) 檢測工具，協助您評估 HD 藥物研究。



更多 HD 研究工具

Huntingtin Biology

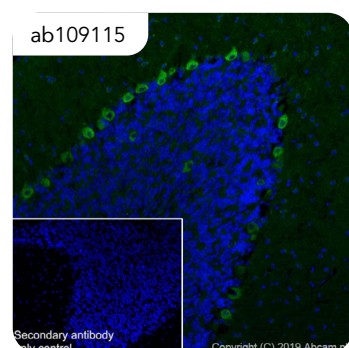
Product	Cat#
AlphaLISA Human and Mouse Mutant HTT Detection Kit	PK-AL3205HV
AlphaLISA Human and Mouse Total HTT Detection Kit	PK-AL3204HV
Anti-Huntingtin antibody [EPR5526]	ab109115

Proteome Homeostasis

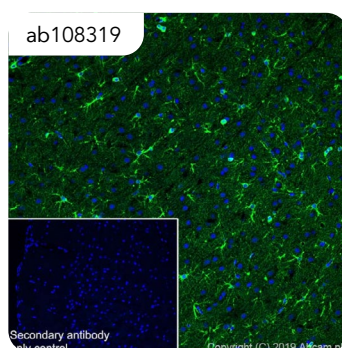
Product	Cat#
Anti-Hsp40 antibody	ab231577
Anti-Hsp70 antibody [EPR16892]	ab181606
Anti-SQSTM1 / p62 antibody [EPR4844]	ab109012

Neuronal Circuitry

Product	Cat#
D-AP5, NMDA glutamate site antagonist	ab120003
Anti-NMDAR1 antibody [EPR2481(2)]	ab109182
Anti-BDNF antibody [EPR1292]	ab108319
Anti-Dopamine Transporter antibody [EPR19695]	ab184451
Anti-TrkB antibody [EPR17805-146]	ab187041



PFA-fixed paraffin embedded Mouse Cerebellum labelling Huntingtin with [ab109115](#).



The Rat Cerebral Cortex frozen sections labelling BDNF with [ab108319](#).

Multiple Sclerosis (MS)

多發性硬化症是一種因自體免疫系統攻擊中樞神經，導致髓鞘脫失 (Demyelination) 與神經軸突受損的慢性發炎疾病。伯森提供多款經典髓鞘相關胜肽 (MOG, PLP, MBP) 協助建立 EAE 動物模型，並搭配專一性檢測抗體與 ELISA 試劑組，加速 MS 治療研究。

Induction of EAE

Product	Cat#
MOG (35-55), mouse, rat	AS-60130
MBP (4-14), bovine, MBP (3-13), mouse	AS-22916
PLP (178-191)	AS-62741



更多 MS 研究工具

Demyelination

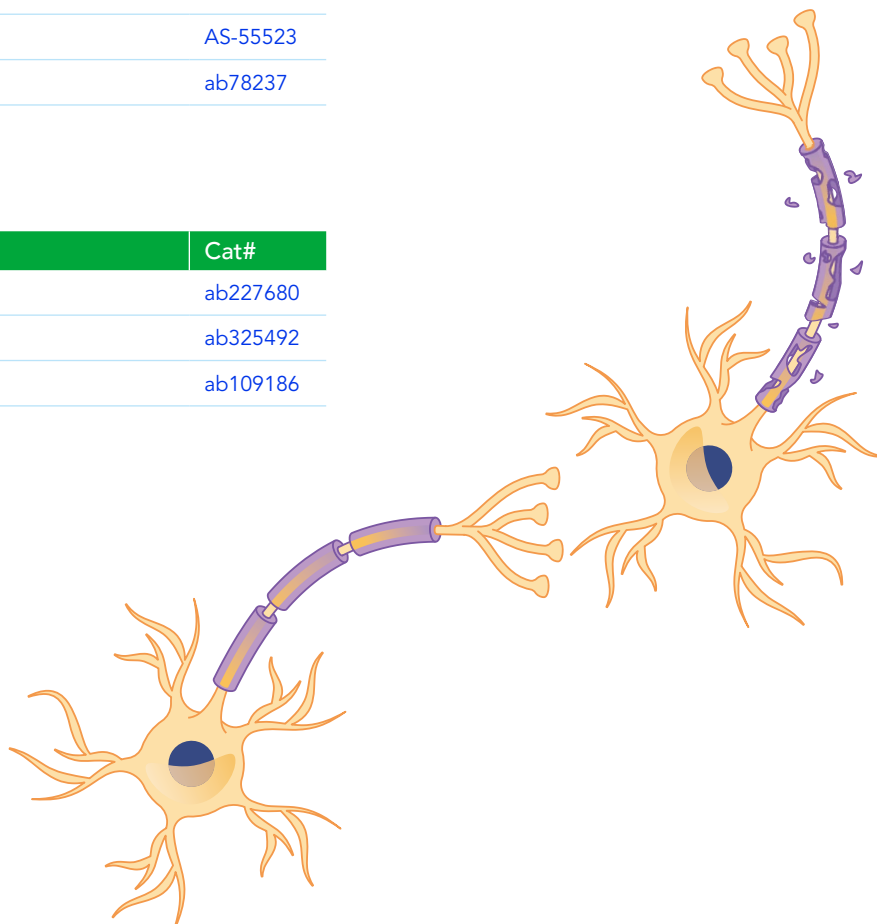
Product	Cat#
Anti-Myelin Basic Protein antibody [12]	ab7349
Anti-Myelin oligodendrocyte glycoprotein antibody [EPR22629-310]	ab233549
Anti-Myelin PLP antibody [plpc 1]	ab9311

Immune Response

Product	Cat#
Anti-Mouse MOG (1-125) IgG Quantitative ELISA Kit	AS-55156
Anti-PLP (178-191) IgG Quantitative ELISA Kit	AS-55523
Anti-CD20 antibody [EP459Y]	ab78237

Remyelination

Product	Cat#
Anti-SOX10 antibody [SP267]	ab227680
Anti-Olig1 antibody [EPR30098-92]	ab325492
Anti-Olig2 antibody [EPR2673]	ab109186



Essential Tools

跨疾病通用・實驗室必備。

從細胞存活到神經發炎，從病理形態到生物標記，神經退化研究的核心工具，全在這裡。

細胞存活分析

Product	Cat#
Cell Counting Kit-8 (CCK-8)	ALX-850-039
LDH Assay Kit (Cytotoxicity)	ab65393
DELTA Eu-TDA Cytotoxicity Kit	PK-AD0116



細胞存活
研究工具

細胞生理狀況分析

CELLESTIAL® 活細胞螢光染劑

不需使用抗體 | 適用多偵測平台 | 活細胞適用

Product	Cat#
Mito-ID Membrane Potential detection kit	ENZ-51018
ROS-ID® Total ROS/Superoxide detection kit	ENZ-51010



CELLESTIAL®
活細胞螢光染劑

Neural Markers

Abcam 提供豐富完整的 Neural Markers 檢測抗體，能專一性辨識各種腦細胞，涵蓋：Mature Neurons、Astrocytes、Microglia、Neural Stem Cells 等等。

Product	Cat#
Anti-Iba1 antibody [EPR16588] - Microglia marker	ab178846
Anti-Nestin antibody [SP103] - Neural Stem Cell Marker	ab105389
Anti-GFAP antibody [EPR1034Y] - Astrocyte Marker	ab68428



Abcam
Neural Markers
檢測抗體

神經發炎 / 損傷相關試劑

Product	Cat#
Human IL-6 ELISA Kit	ab178013
Human TNF alpha ELISA Kit	ab181421
Human GFAP ELISA Kit	ab288175
AlphaLISA Human NFL Detection Kit	PK-AL3199HV
Neuroinflammation Marker (BDNF, ICAM1, TREM2, GFAP, TNF alpha, Iba1) Antibody Panel - Human	ab263462

神經靶點快速篩選平台

Product	Cat#
Human Neuro Antibody Array II (Membrane, 30 Targets)	ab211063

伯森提供專業實驗代工服務，
快速幫您產出高品質數據！



Neurodegenerative Diseases



照亮暗處，找出隱藏的 神經系統疾病基因體變異

PacBio PureTarget panel 利用 CRISPR-Cas9 直接擷取原生 DNA 目標區域，無需 PCR 擴增，即可透過 HiFi 長讀定序一次解析難測位點的序列與重複擴增，並保留甲基化資訊。



Carrier Panel

精選難以定序的基因，並依 ACMG 指引設計，可減少額外檢測的需求。



Repeat Expansion Panel 2.0

涵蓋 38 個神經系統疾病相關標的，包括 17 個共濟失調相關基因，以及 ALS / FTD、亨丁頓舞蹈症與肌強直性失養症等疾病相關位點。

Allele-specific methylation in *FMR1* for carrier female



PureTarget repeat expansion panel 2.0 於單次定序中，經 TRGT 生資工具同時解析 *FMR1* 帶因者樣本中兩條 allele 的 CGG 重複次數 (121 / 139)、AGG interruption、allele 特異性甲基化狀態與重複長度的鑲嵌現象 (mosaicism)。



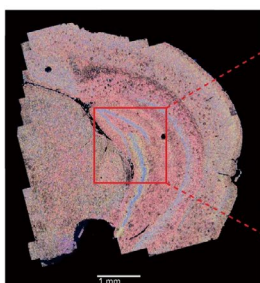
PacBio

MERSCOPE Ultra / MERFISH 2.0

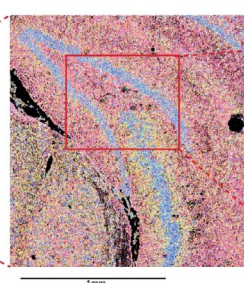
在組織原位，解析病灶周邊的細胞分布與狀態

- 以單細胞解析度，直接定位上千種 RNA 表現與細胞類型。
- 提供 Mouse Pan Neuro 與 Human Brain 815 gene predesigned panel，涵蓋 microglia、astrocyte、神經元等關鍵標記，並可額外加入自訂基因，依研究主題補充所需標的。

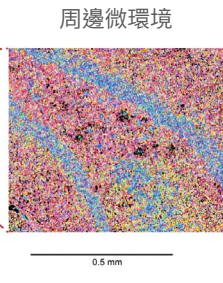
全腦腦切片



局部區域放大



Aβ 斑塊
周邊微環境



Aβ 斑塊周圍的細胞微環境：以 MERFISH 進行單細胞空間轉錄體分型，並利用 DAPI 影像定位 Aβ 斑塊，解析斑塊周圍的細胞組成；研究顯示，最鄰近斑塊的細胞以 microglia 為主。

圖片來源：Aβ 斑塊圖片改作自 Johnston et al., Molecular Psychiatry (2025) 30:461–477, CC BY 4.0 (已裁切、重新標註)。研究團隊使用自訂 300-gene 小鼠 panel 產生。



vizgen®

