

WESTERN BLOT

EXCEL

abcam's western blot tool to help you progress faster



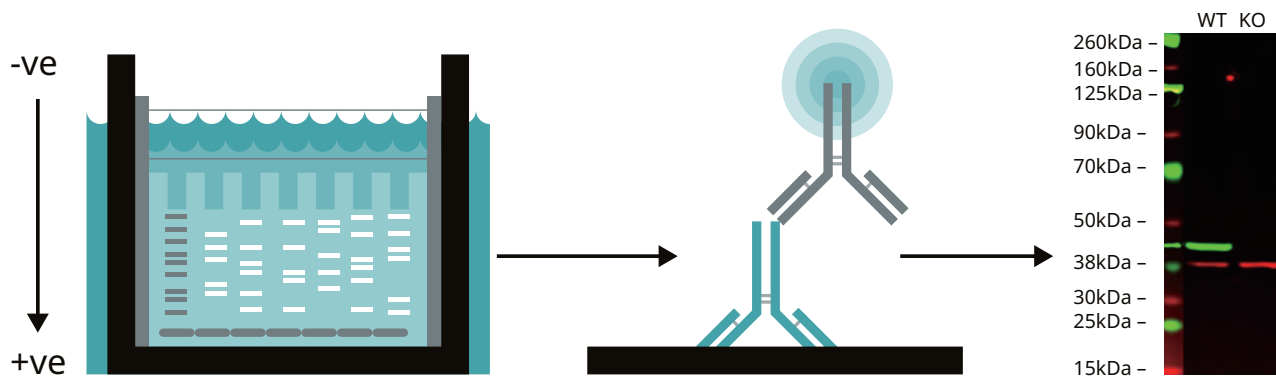
progress happens together
abcam



西方墨點法 Western Blot

西方墨點法為檢測蛋白質方法的一種，透過電泳分離和抗體結合，定量檢體中的蛋白質。可針對相關蛋白對於細胞生理作用的機制探討，是目前常見的實驗技術之一。

1. 利用膠體電泳使蛋白依照大小分離
2. 將蛋白轉移至膜上
3. 利用一級/次級抗體對於膜上蛋白進行免疫染色
4. 使用冷光或是螢光的顯色方式對目標蛋白質進行偵測



Loading control 依照實驗設計不同可選擇適合的 loading control，通常在細胞具有穩定的表現可以做為蛋白質水平的對照組。

kDa	全細胞	粒線體	細胞核	細胞膜	細胞骨架	血清
125	Vinculin					
110				NaK ATPase		
75						Transferrin
66			Lamin B1			
60		HSP60				
55	Alpha tubulin		HDAC1		Alpha tubulin	
50	Beta tubulin		YY1		Beta tubulin	
42	Actin				Actin	
40	Beta- actin				Beta-actin	
35	GAPDH [†]		TBP [‡]			
30		VDAC1/Porin	PCNA			
24	Cyclophilin B					
20	Cofilin	COX IV [§]			Cofilin	
15			Histone			



樣本製備與蛋白定量

Sample Preparation and Protein Quantification

Category	Product	Size	AbID
細胞萃取 Cell fractionation	Cell Fractionation Kit - Standard	1 kit	ab109719
	Mitochondria/Cytosol Fractionation Kit	25, 100 tests	ab65320
	Mitochondria Isolation Kit for Cultured Cells	1 kit	ab110170
	Mitochondria Isolation Kit for Tissue	1 kit	ab110168
	Plasma Membrane Protein Extraction Kit	50 tests	ab65400
	Lysosome Isolation Kit	50 tests	ab234047
	Microsome Isolation Kit	50 tests	ab206995
梯度離心培養基 Density gradient media	OptiPrep Density Gradient Medium	100, 250 ml	ab286850
	Lymphoprep	250, 500 ml, 4 packs (4x250 ml)	ab286892
細胞裂解液 Lysis buffer	10X RIPA Buffer	15 ml	ab156034
	1X Native Lysis Buffer (Dodecyl maltoside)	15 ml	ab156035
	10X Cell Lysis Buffer (Triton X-100)	15 ml	ab152163
	10X Red Blood Cell (RBC) Lysis Buffer	100 ml	ab204733
蛋白水解酶抑制劑 Protease Inhibitor Cocktail	Protease Inhibitor Cocktail (EDTA provided in a separate vial)	3, 10, 30 ml	ab271306
	Protease Inhibitor Cocktail EDTA Free	3, 10, 30 ml	ab270055
	Phosphatase Inhibitor Cocktail I	1 ml	ab201112
	Protease and Phosphatase Inhibitor Cocktail (EDTA provided in a separate vial)	1 kit	ab201119
	Protease and Phosphatase Inhibitor Cocktail (EDTA Free)	1 ml	ab201120
蛋白質定量 Protein quantification	BCA Protein Assay Kit II (25 - 2000 µg/ml)	2500, 5000 tests	ab287853
	BCA Protein Assay Kit (0.5 - 30 µg)	1000 tests	ab102536
	Bradford Assay Kit	1000 tests	ab102535

蛋白質梯度物 & WB 標記筆

Protein ladders & WB marker pen

Category	Product	Size	AbID
Prestained	Prestained Protein Ladder – Broad molecular weight (10-245 kDa)	500 µl	ab116028
	Prestained Protein Ladder – Extra broad molecular weight (5-245 kDa)	500 µl	ab116029
	Prestained Protein Ladder – Extra broad molecular weight (6.5-270 kDa)	500 µl	ab234592
	Prestained Protein Ladder – Mid-range molecular weight (10-180 kDa)	500 µl	ab116027
Unstained	Unstained Protein Ladder (10-200 kDa)	500 µl	ab234618
WB Marker Pen	Western Blot Marker Pen	1 unit	ab166858



轉染 & 阻斷

Transferring & Blocking

Category	Product	Size	AbID
Transfer membrane	Low Fluorescence Western Membrane (PVDF)	10 membranes	ab133411
	Nitrocellulose Transfer Membrane - 0.45 µm	10 membranes	ab133412
	Nitrocellulose Transfer Membrane - 0.22 µm	10 membranes	ab133413
Protein stain	Ponceau S Solution	1000 ml	ab270042
Blocking buffer	10X Blocking Buffer	50 ml	ab126587

二級抗體

Secondary antibodies

Category	Product	Size	AbID
HRP conjugated secondary antibodies	Goat Anti-Rabbit IgG H&L (HRP)	1 mg	ab6721
	Goat Anti-Rabbit IgG H&L (HRP)	500 µg	ab205718
	Rabbit Anti-Mouse IgG H&L (HRP)	1 mg	ab6728
	Goat Anti-Mouse IgG H&L (HRP)	1 mg	ab6789
	Goat Anti-Mouse IgG H&L (HRP)	1 mg	ab97023
	Goat Anti-Mouse IgG H&L (HRP)	500 µg	ab205719
	Rabbit Anti-Goat IgG H&L (HRP)	1 mg	ab6741

蛋白偵測 & 脫離

Detection & Stripping

Category	Product	Size	AbID
ECL substrate kit	ECL Western Blotting Substrate Kit	50, 500 tests	ab65623
	ECL Substrate Kit (High Sensitivity) (23 pg - 187 ng)	20, 200, 500 ml	ab133406
	ECL Substrate Kit (Very High Sensitivity) (4.6 pg - 4.7 ng)	20, 100, 200 ml	ab133408
	ECL Substrate Kit (Ultra High Sensitivity) (1.2 pg - 2 ng)	20, 100, 200 ml	ab133409
Stripping buffer	Western Blot Stripping Buffer	500 ml	ab282569