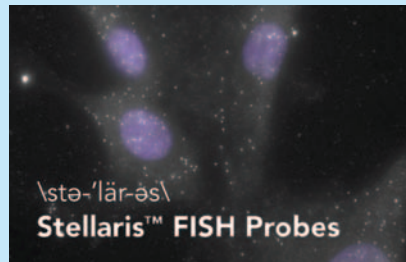


Stellaris™ FISH Probes

Detection, Localization, and Quantification of mRNA



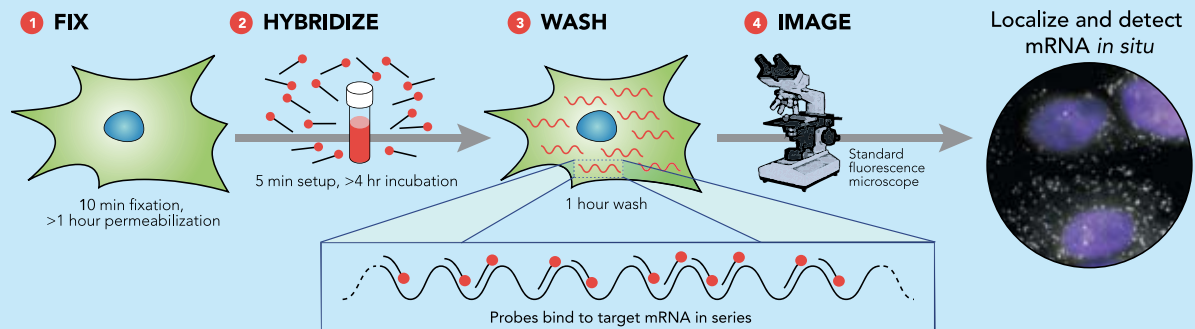
Direct Detection!

***In Situ* Localization!**

Single Molecule Quantification!

- 適用性廣：包含細胞、FFPE 切片、冷凍組織切片、線蟲胚胎及幼蟲、果蠅翅膀、酵母菌、細菌等
- 獨特設計：一組 mRNA probe set 內含 30-48 種 oligos (20 bases)，可針對不同片段的 mRNA 進行雜交
- 可同時觀察三種 mRNA：利用不同螢光 probe 標記三種 mRNA，並用 DAPI 標記細胞核位置
- 螢光 probe 選擇性高：目前有 8 種螢光供您選擇
- 與免疫染色相容：可在同一張切片，利用抗體觀察蛋白表現及分佈 (FFPE 切片除外)

操作流程



Step 1 Prepare and Fix Sample

The sample is adhered or sectioned onto a #1 coverglass and permeabilized with 70% EtOH. Slight variations in sample preparation between different organisms and sample types are covered in the online protocols. No protease is required, except FFPE samples.

Step 2 Hybridize Probes

For most samples, hybridization can be completed in 4 hours at +37 °C in a generic laboratory incubator.

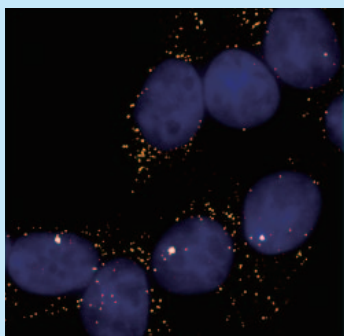
Step 3 Wash Sample

After hybridization, wash buffer with short incubation periods is used to remove excess probes. The total time for this step is 1 – 1.5 hours.

Step 4 Image Sample

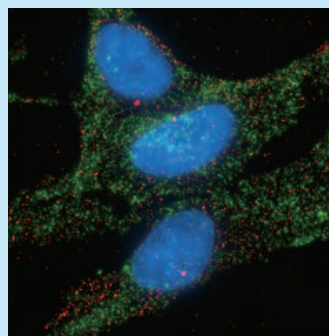
At this point, the sample can be imaged using a standard fluorescence microscope.

Sensitivity & Specificity

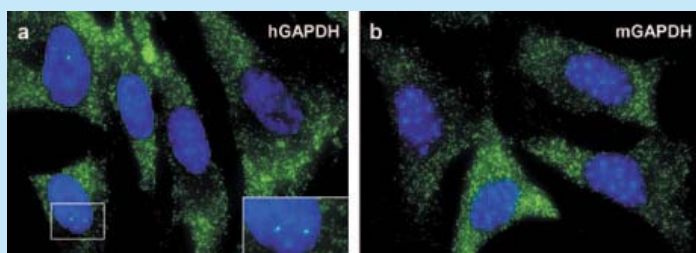


Positive signal is only identified from the combined localized fluorescence of multiple probes. Off-target binding of probes generates weak and diffuse fluorescence, well below the threshold for specifically-targeted mRNA detection.

Combination with Antibody Assays

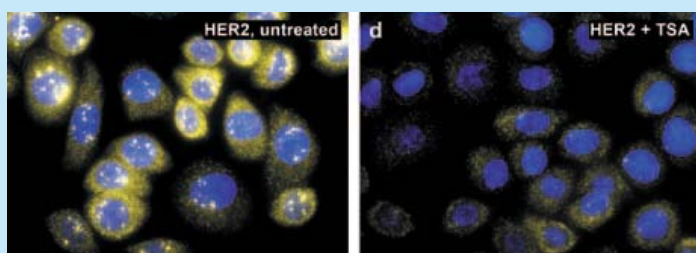


Multiple assay with GAPDH mRNA using Stellaris Probes (red), and Alexa FluorR 488 antibodies for GAPDH protein (green).



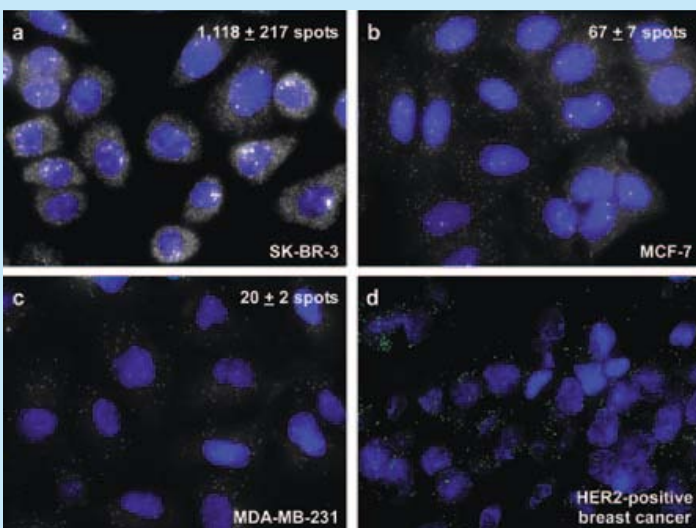
利用 **Stellaris FISH probes** 偵測人類或老鼠纖維細胞的 mRNA。

(a, b) Maximum-intensity images showing fluorescent spots corresponding to GAPDH mRNA in (a) normal human lung fibroblasts (HEL 299) and in (b) a mouse embryonic fibroblast cell line (NIH/3T3); the inset shows the sites of active RNA transcription.



觀察加藥 (TSA) 前後，**HER2 mRNA** 表現量的變化。

(c, d) SK-BR-3 human breast cancer cells probed for HER2 mRNAs were either (c) untreated or (d) treated for 6 h with 1 μM TSA.



觀察多種人類乳癌細胞的 **HER2 mRNA** 表現並量化之。

(a–c) mRNAs of HER2 in (a) SK-BR-3, (b) MCF-7 and (c) MDA-MB-231 cells. (d) HER2 mRNA was also detected in human breast cancer tissue (FFPE samples).

訂購資訊

Cat No	Product	Size	EX (nm)	EM (nm)
客製化 mRNA probe set				
SMF-1084-5	Custom Assay with CAL Fluor® Red 635 Dye	5 nmol	618	637
SMF-1083-5	Custom Assay with CAL Fluor® Red 590 Dye (TAMRA replacement)	5 nmol	569	591
SMF-1082-5	Custom Assay with CAL Fluor® Red 610 Dye (Alexa Fluor 594 replacement)	5 nmol	590	610
SMF-1081-5	Custom Assay with CAL Fluor® Orange 560 Dye	5 nmol	538	559
SMF-1065-5	Custom Assay with Quasar® 670 Dye (Cy5 replacement)	5 nmol	647	670
SMF-1063-5	Custom Assay with Quasar® 570 Dye (Cy3 replacement)	5 nmol	548	566
SMF-1025-5	Custom Assay with FAM Dye	5 nmol	495	520
SMF-1001-5	Custom Assay with TAMRA Dye	5 nmol	557	583
Internal control				
SMF-2001-1	Human GAPDH with Quasar® 570 Dye	1 nmol	548	566
SMF-3001-1	Mouse GAPDH with Quasar® 570 Dye	1 nmol	548	566