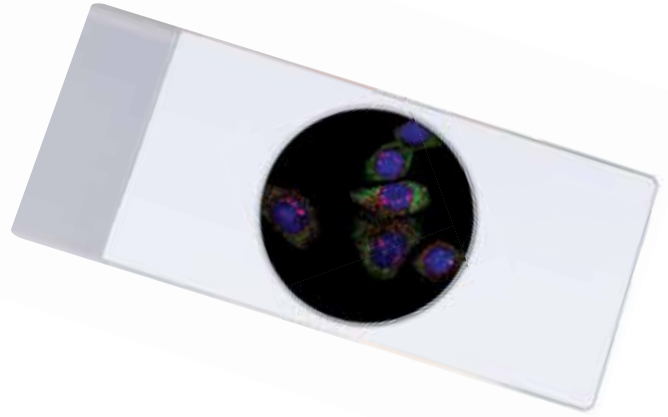


# \stə-ˈlär-əs\ Stellaris® RNA FISH Probes

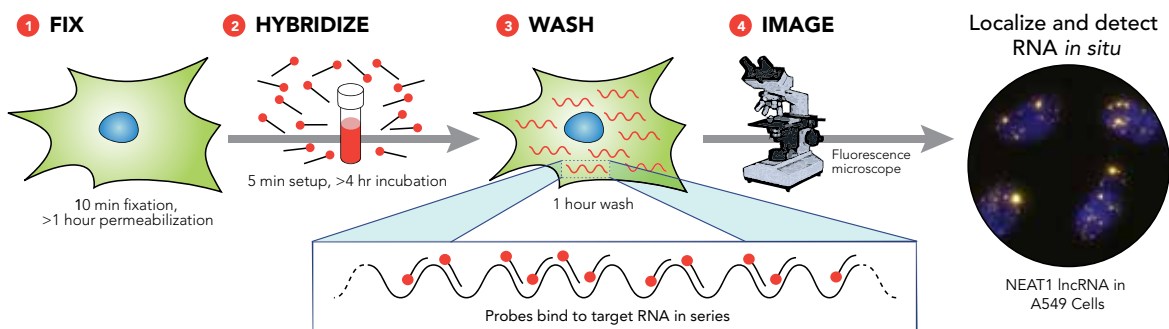
## What are Stellaris FISH Probes?

**Stellaris FISH Probes** enable simultaneous detection, localization, and quantification of individual mRNA molecules at the cellular level. This much improved and simplified FISH technology makes use of multiple single-labeled oligonucleotide probes to provide a high degree of specificity and sensitivity. Stellaris FISH probes are ideal for applications that analyze transcription site activity, protein-RNA interactions and mRNA translocation events, and hold promise for future diagnostic applications. Single molecules can be seen as individual diffraction-limited spots in conventional fluorescence microscopes, evoking stars on a moonless night! For Research Use Only. Not for use in diagnostic procedures.



## How to Use Stellaris FISH Probes

**The Stellaris RNA FISH Method** - Detecting single transcripts *in situ* using Stellaris FISH Probes is remarkably simple and straightforward. From sample preparation to imaging with wide-field fluorescence microscopy, it takes less than a day to bring light to your queries. An experiment using Stellaris FISH Probes requires no exotic reagents and can detect single mRNA molecules in four easy steps:



## Free, Online Probe Design

You can quickly design Stellaris FISH Probes possessing optimal binding properties for your target RNA sequence by using Biosearch Technologies' free, web-based probe designer: [www.biosearchtech.com/stellarisdesigner](http://www.biosearchtech.com/stellarisdesigner).

## Stellaris Image Gallery

Browse our Stellaris image gallery at [www.biosearchtech.com/stellarisgallery](http://www.biosearchtech.com/stellarisgallery) to view images contributed by Biosearch and other fellow scientists.

[www.biosearchtech.com/stellaris](http://www.biosearchtech.com/stellaris)

## Reporter Dye Selection

We offer the following fluorophore options for Stellaris FISH Probes. Simply select the fluorophore(s) that best match the filter set(s) of your fluorescence microscope.

**Note:** All CAL Fluor® and Quasar® dyes are fluorophores proprietary to Biosearch Technologies. **High background autofluorescence may obscure detection of fluorescein in some cell and tissue types.**

## Why Use Stellaris FISH Probes?

**Unsurpassed Simplicity and Sensitivity** – never before has it been so simple and straightforward to quantify mRNA using FISH. Count single molecules using fluorescence microscopy!

**Design Specificity and Redundancy** – Stellaris FISH probes gain potency through built-in redundancy. Mismatched oligonucleotides or probes that fail to bind produce negligible background fluorescence while the Stellaris FISH Probes that do bind to target RNA together produce bright fluorescence signals clearly distinguishable above background.

**Applicable to Many Sample Types** – From cultured cells to tissue samples, Stellaris FISH Probes are used with a wide

Fluorophore	EX (nm)	EM (nm)
Fluorescein	495	520
CAL Fluor Orange 560	538	559
Quasar 570 (Cy® 3 Replacement)	548	566
TAMRA	557	583
CAL Fluor Red 590 (TAMRA Replacement)	569	591
CAL Fluor Red 610 (Alexa Fluor® 594 Replacement)	590	610
CAL Fluor Red 635	618	637
Quasar 670 (Cy 5 Replacement)	647	670

variety of biological specimens including, but not limited to, bacteria, yeast, mammalian cells, *Caenorhabditis elegans* embryos and L1-L2 stage larvae, *Drosophila melanogaster* wing imaginal discs, and primary rat hippocampal neurons.

**Multiplexing Capabilities** – Detect two or three different species of mRNA target molecules at the same time by using Stellaris FISH Probes labeled with different fluorophores.

**Advanced Tool for Research** – Stellaris FISH Probes give you the ability to detect single molecules of your target mRNA *in situ*, giving you the potential to transform research in cancer, stem cell research, neuroscience, developmental biology, pathology, and more.

## Product Information & Pricing

Stellaris FISH Probes are a blend of up to 48 oligos labeled with a fluorophore. A set of probes is delivered in a single tube containing 5 nanomoles total probe, such that each oligo is represented at about 100 picomoles. This probe stock is sufficient to provide 200 through 2000 hybridization experiments depending on the optimal working dilution for each target. Stellaris FISH Probes arrive lyophilized and ready to use.

Custom Stellaris FISH Probes	
Catalog #	Product Description
SMF-1025-5	Stellaris FISH Probes, Custom Assay with Fluorescein
SMF-1081-5	Stellaris FISH Probes, Custom Assay with CAL Fluor Orange 560
SMF-1063-5	Stellaris FISH Probes, Custom Assay with Quasar 570
SMF-1001-5	Stellaris FISH Probes, Custom Assay with TAMRA
SMF-1083-5	Stellaris FISH Probes, Custom Assay with CAL Fluor Red 590
SMF-1082-5	Stellaris FISH Probes, Custom Assay with CAL Fluor Red 610
SMF-1084-5	Stellaris FISH Probes, Custom Assay with CAL Fluor Red 635
SMF-1065-5	Stellaris FISH Probes, Custom Assay with Quasar 670

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