KromaTiD

Pinpoint FISH (PPF)™ Imaging Products

What is Pinpoint FISH?

Pinpoint FISH (PPF) is a synthetic oligonucleotide-based FISH assay designed to provide the highest resolution, lowest background, and lowest limit of detection available. KromaTiD probes can be used in standard FISH assays, delivering improved specificity and hybridization kinetics.

PPF allows researchers to expand beyond the limitations of conventional FISH probes to detect smaller targets and design high specificity tests.

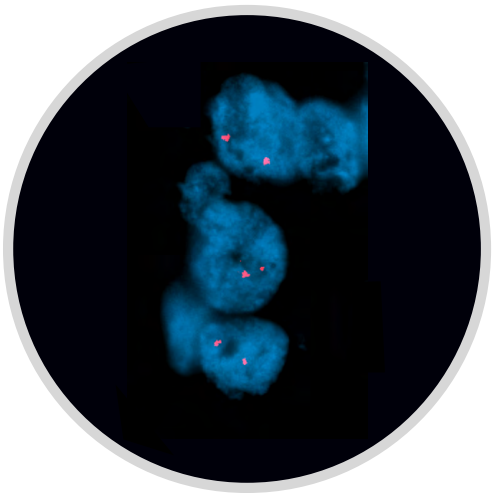

Figure 1: Evaluation of HER2 amplification by Pinpoint FISH. Breast cancer tissue was probed with KromaTiD HER2 probe (red) and analyzed for amplification. Shown here is an example of a normal (non-amplified) HER2 signal.

Any FISH Application

KromaTiD offers genome wide, custom Pinpoint FISH assays engineered to meet your specific requirements. Using our proprietary design approach, KromaTiD provides assays optimized for detecting small targets, specific breakpoints, or transgene inserts. Pinpoint FISH can also be used for more conventional FISH applications including:

- Deletions
- Amplifications & CNVs
- Break-Aparts (Gene LOF)
- Fusion Gene Detection

If probes meeting the requirements of Analyte Specific Reagents are required, production under a GLP Quality Management System is available.

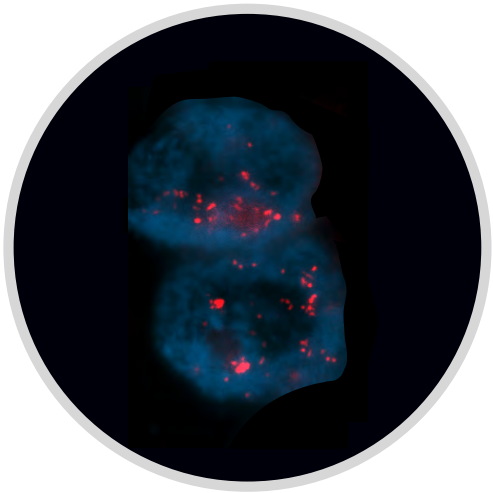

Figure 2: Breast cancer tissue analyzed using Pinpoint FISH probes (red) demonstrating HER2 amplification.

KromaTiD

Pinpoint FISH is the Most Powerful Custom FISH Assay on the Market

Smallest Targets

• PPF routinely detects targets as small as 5-10kb in metaphase spreads or dissociated cells, providing researchers with LLOD orders of magnitude lower than BAC FISH probes

Unmatched Performance

• Industry leading resolution and signal-to-noise ratio

• Repeat-free design results in lower background interference and higher signal-to-noise

Highly Customizable and Flexible

• PPF probes can be designed and engineered against any published genome, allowing for the widest range of targets and target sizes available

• Comprised of synthetic probes designed against unique sequence, PPF is perfectly suited to detect mutations with variable breakpoints

Equipment and Sample Requirements

KromaTiD has designed the Pinpoint FISH platform to minimize adoption costs and training. For labs that currently run FISH, PPF assays will work with your established samples, workflow and imaging systems without any capital expenditures. PPF probes have been tested in combination assays with BAC probes, and can work in the same assays.

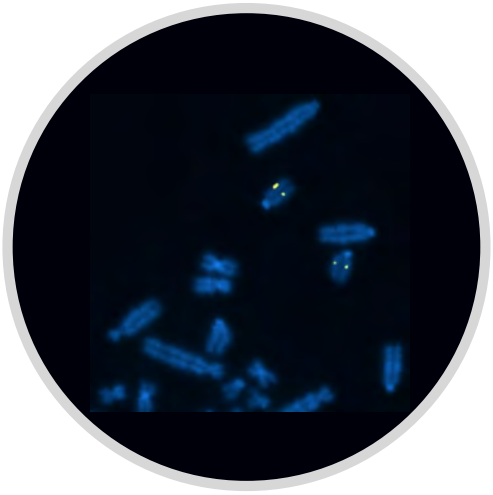

Figure 3: Evaluation of small target integration in mammalian cells. In this system, a control probe (yellow) and a target probe (red), were used to evaluate chromosomal integration events of a ~10kb de-identified target sequence. Shown here is an example of a cell with no target probe, only control probes present in both homologs.

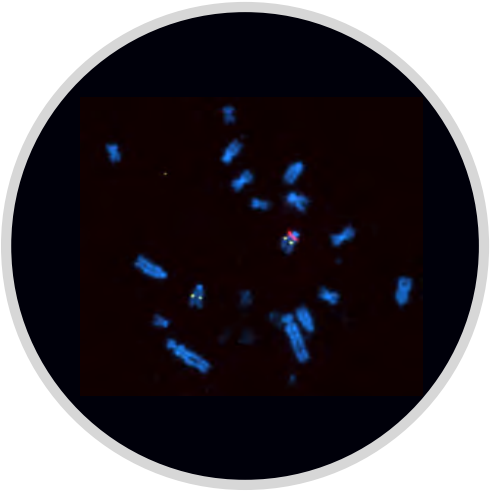

Figure 4: Mammalian cell with control probes present in both homologs (yellow) and a ~10kb target sequence integration (red) on one chromosome.

KromaTiD

Sample

- FFPE
- Fixed Cell Pellet
- Any FISH Sample
- Published Genome

Equipment

- Standard FISH Equipment
- Standard FISH Consumables

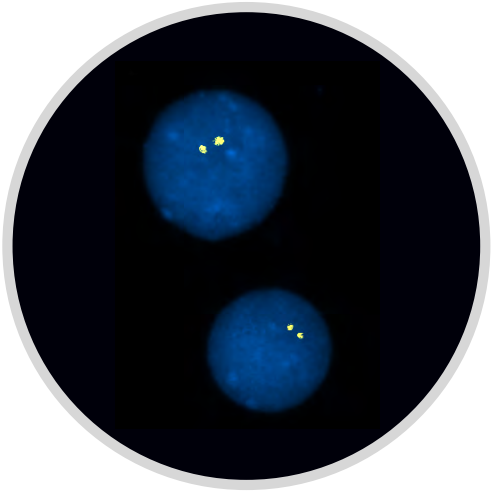

Figure 4: A lymphoblast cell line (GM15510) was fixed in methanol:acetic acid fixative and probed with KromaTiD p53 probe (yellow).

For labs that do not run FISH but are interested in the high-resolution target data that only Pinpoint FISH can provide, KromaTiD's service division can perform projects ranging from single sample analysis to full library screening: all we need from you is a sample.

Pricing and Custom Assays

KromaTiD can design and produce fully custom probes or assays for targets in any published genome.

Products	List Price
Non-refundable set-up fee (when applicable)	Project Specific
Assay, execution, imaging, and scoring PPF (1 Probe)	$3,220
Additional Probes	$1,000
Custom Probes (Design and Verification - 1 Probe)	$5,000
Standard Probe Production	$1,000 each
Cell Culture + Harvest per Sample	$300 each
Culture Development per Sample	$200 each

Contact us today at **probes@kromatid.com** to speak with our team of experts about how Pinpoint FISH can help meet your needs!