

SensationPlus™ FFPE WT Reagent Kit

Unlock meaningful gene expression data from FFPE samples

Formalin-fixed paraffin-embedded (FFPE) samples are an important resource for the discovery and validation of cancer biomarkers. Millions of archived samples are available worldwide for retrospective studies; however, there are significant challenges associated with gene expression analysis of FFPE samples. Some of the major challenges include RNA degradation, chemical modification, and limited quantity of sample availability for RNA isolation. Furthermore, differences in tissue fixation, RNA isolation protocols, as well as sample age can affect the quality of the gene expression data generated.

Affymetrix has recently developed SensationPlus™ FFPE WT Reagent Kit, providing a robust method for whole-transcriptome analysis of FFPE samples. The kit is designed and optimized for the GeneChip® human gene ST arrays. Affymetrix' latest whole-transcript expression array, GeneChip® Human Gene 2.0 ST Array, offers an advanced and comprehensive option for whole-transcriptome analysis of >40,000 mRNAs and >11,000 intermediary lincRNAs that impacts downstream mRNA expression profiles. lincRNAs are shown in research studies to play an important role in the genesis and progression of disease, including cancer. Probes on GeneChip Human Gene 2.0 ST Array are distributed across the full length of the gene, providing a more complete and accurate measure of overall gene expression even in highly degraded RNA samples.

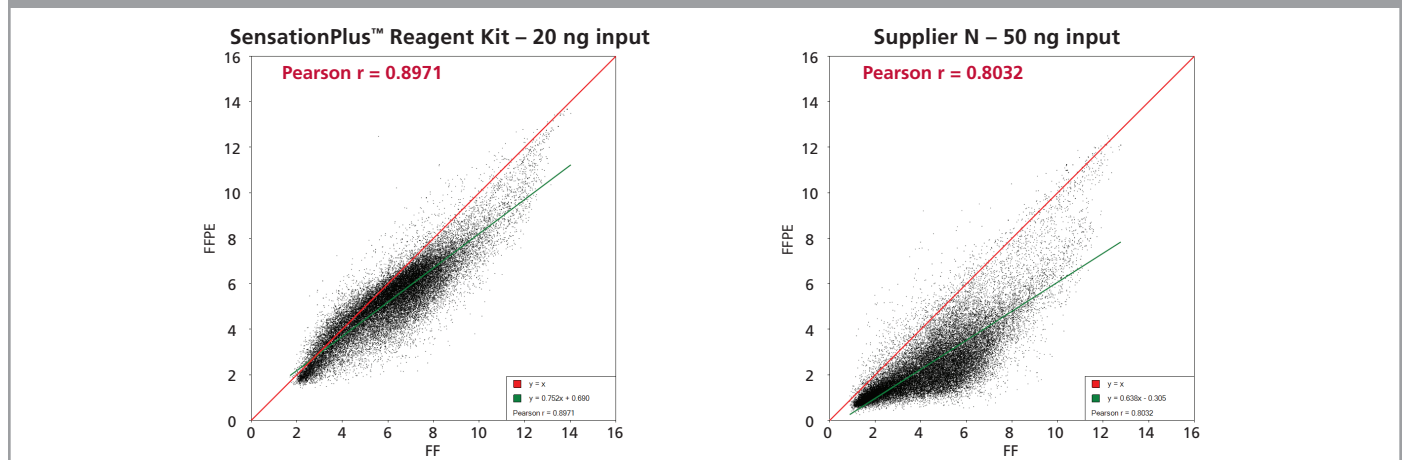
SensationPlus FFPE WT Reagent Kit overcomes the challenges associated with FFPE samples and efficiently amplifies and labels FFPE-derived RNA to generate sufficient target for hybridization to GeneChip® human gene ST arrays. SensationPlus FFPE WT Reagent Kit thus provides a complete expression profiling solution with high sensitivity, reproducibility, and performance, enabling you to unlock the full potential of FFPE samples.

Benefits

- **Low sample input requirement**
Requires as little as 20 ng total input RNA, depending on sample quality, saving precious samples for additional clinical research.
- **Obtain biologically meaningful data**
Combined with GeneChip Human Gene 2.0 ST Array, the kit provides the ideal platform for complete profiling of the transcriptome including coding and lincRNAs from FFPE samples.
- **High correlation between FFPE and fresh frozen samples**
Designed specifically to work with older and degraded samples producing data highly comparable to fresh frozen samples.
- **Greater than 99% technical reproducibility**
Produces consistent results from experiment to experiment, thus giving you greater confidence in your FFPE gene expression data.

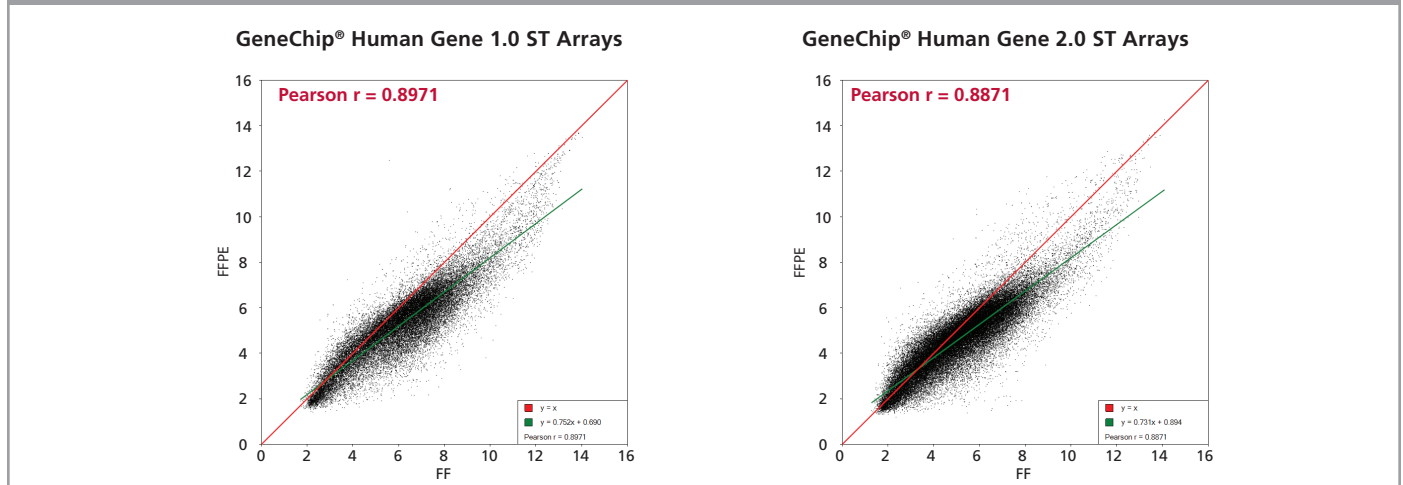
SensationPlus™ FFPE WT Reagent Kit requires lower sample input than Supplier N

Figure 1: Signal correlation plots between FF vs. FFPE samples in 9-year-old lung tumor. RNA was isolated from matched fresh frozen (FF) and FFPE samples of lung tumor (2003) using RNeasy® Lipid Tissue Mini Kit (QIAGEN) and RecoverAll™ Total Nucleic Acid Isolation Kit (Life Technologies), respectively. Array hybridization target was prepared from 20 ng FF and FFPE derived total RNA with SensationPlus™ FFPE Amplification and WT Labeling Kit. The same FF and FFPE derived RNA samples were used for preparation of array hybridization target with 50 ng starting material according to Supplier N recommended procedure.



SensationPlus™ FFPE WT Reagent Kit gives excellent performance on the GeneChip® human gene ST arrays

Figure 2: Signal correlation plots between FF vs. FFPE in 9-year-old lung tumor on GeneChip® Human Gene 1.0 ST Arrays vs. GeneChip® Human Gene 2.0 ST Arrays. RNA was isolated from matched fresh frozen (FF) and FFPE samples of lung tumor (2003) using RNeasy® Lipid Tissue Mini Kit (QIAGEN) and RecoverAll™ Total Nucleic Acid Isolation Kit (Life Technologies), respectively. Array hybridization target was prepared from 20 ng FF and FFPE derived total RNA with SensationPlus™ FFPE Amplification and WT Labeling Kit.



Ordering information

Part number	Description	Details
902042	SensationPlus™ FFPE WT Reagent Kit	12 reactions
902031	SensationPlus™ FFPE WT Reagent Kit	24 reactions
902311	GeneChip® Human Transcriptome Array 2.0 and SensationPlus™ FFPE WT Reagent Kit	12 samples
902312	GeneChip® Human Transcriptome Array 2.0 and SensationPlus™ FFPE WT Reagent Kit	24 samples

Additional products

Part number	Description	Details
902233	GeneChip® Human Transcriptome Array 2.0	2 arrays
902162	GeneChip® Human Transcriptome Array 2.0	10 arrays
902112	GeneChip® Human Gene 2.0 ST Array	6 arrays
902113	GeneChip® Human Gene 2.0 ST Array	30 arrays
901085	GeneChip® Human Gene 1.0 ST Array	2 arrays
901086	GeneChip® Human Gene 1.0 ST Array	6 arrays
901087	GeneChip® Human Gene 1.0 ST Array	30 arrays

Affymetrix, Inc. Tel: +1-888-362-2447 ■ Affymetrix UK Ltd. Tel: +44-(0)-1628-552550 ■ Affymetrix Japan K.K. Tel: +81-(0)3-6430-4020
Panomics Solutions Tel: +1-877-726-6642 panomics.affymetrix.com ■ USB Products Tel: +1-800-321-9322 usb.affymetrix.com

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