CytoSure™

CytoSure™ ISCA Sample Tracking Spike-ins

Confident sample identity tracking for use with CytoSure ISCA arrays

Increasing numbers of aCGH samples combined with higher-throughput array formats means that it is imperative to track samples throughout the labelling, hybridisation and analysis process to maintain sample identity. CytoSure ISCA Sample Tracking Spike-ins are uniquely designed to enable reliable sample tracking and easy identification of sample mix-up using OGT's class-leading CytoSure ISCA Arrays and CytoSure Interpret Software.

CytoSure ISCA Sample Tracking Spike-ins deliver:

- ✓ Confidence in results
- ✓ Simple one-step procedure with no alteration to existing workflows
- ✓ Easy identification of sample mix-up

Confidence in results

As aCGH is now recognised as the first-tier test for identification of numerous cytogenetic aberrations,[1] many laboratories are scaling up their processes to increase throughput and reduce costs. Parallel processing of higher numbers of samples increases the possibility of sample mix-up. Even automated workflows contain several steps where sample identity can be lost (e.g. pipetting samples into gasket slides). CytoSure ISCA Sample Tracking Spike-ins enable researchers to quickly and easily identify any erroneous samples ensuring only accurate clinical data is reported.

Simple one-step procedure with no alteration to existing workflows

Each CytoSure ISCA Sample Tracking Spike-in is designed to a specific, unique region of the genome. Oligonucleotide probes complementary to the spike-ins are included on all of the ISCA arrays supplied and optimised by Oxford Gene Technology (OGT). Eight different CytoSure ISCA Sample Tracking Spike-ins are available. Each spike-in has been carefully prepared to ensure that there is no cross-hybridisation with other probes on the array or with any other region on the genome. Each spike-in supplied is sufficient for 12 labelling reactions and is provided in 3 separate aliquots to avoid potential DNA degradation caused by repeated freeze thawing. In addition, colour-coded caps are used for ease of identification, aiding correct usage. The spike-in is pipetted into the labelling reaction, then the labelling reaction and array processing continues following the typical workflow. CytoSure ISCA Sample Tracking Spike-ins are particularly suitable for use when labelling reactions are prepared in tubes and ideally complement the 24 reaction CytoSure Genomic DNA Labelling Kit.

Easy identification of sample mix-up

The specific CytoSure ISCA Sample Tracking Spike-in used is simply selected in the CytoSure Interpret Software and the system automatically confirms if the resultant data is correct for this spike-in, thereby identifying whether there has been a sample mix-up (Figure 1).

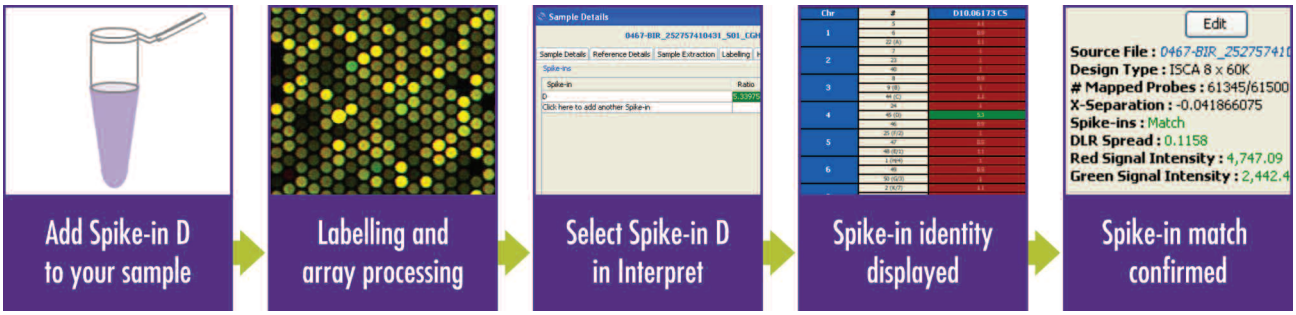

Figure 1: Fast and intuitive entry of CytoSure ISCA Sample Tracking Spike-in into CytoSure Interpret Software. Drop-down menus allow the user to quickly enter the specific spike-in used in the labelling reaction. The identity of the sample tracking spike-in is clearly displayed after analysis.

For more information on CytoSure products and services, visit www.ogt.co.uk/cytosure.

Ordering Information

Product	Contents	Cat. No.
CytoSure ISCA Sample Tracking Spike-ins A – H	Sample Tracking Probe sufficient for 12 reactions supplied in three aliquots	500050 – 500057
CytoSure Interpret Software	Class-leading data analysis software. Complimentary with all array purchases	020022
CytoSure ISCA arrays (4x44k, 4x180k, 8x60k)	Microarrays with four or eight arrays, CytoSure Interpret Software	Various
CytoSure Genomic DNA Labelling Kit	24 reactions: clean-up columns, dyes, nucleotide mix, random primers, enzyme, collection tubes	020020

References

1. Miller D. T., *et al* (2010) Consensus Statement: Chromosomal Microarray Is a First-Tier Clinical Diagnostic Test for Individuals with Developmental Disabilities or Congenital Anomalies. Am J Hum Genet. 86, 749–764

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