



A Sysmex Group Company



Satellite Enumeration Probes

REF: LPE 008B-A / LPE 012B-A / LPE 017B-A

Analyte Specific Reagent: Analytical and performance characteristics are not established.

Fluorescence *In Situ* Hybridisation (FISH) is a technique that allows DNA sequences to be detected on metaphase chromosomes or in interphase nuclei from fixed cytogenetic samples. The technique uses DNA probes that hybridise to entire chromosomes or single unique sequences, and serves as a powerful adjunct to classic cytogenetics. Recent developments have meant that this valuable technique can now be applied as an essential tool in prenatal, haematological and pathological chromosomal analysis. Target DNA, after fixation and denaturation, is available for annealing to a similarly denatured, fluorescently labelled DNA probe, which has a complementary sequence. Following hybridisation, unbound and non-specifically bound DNA probe is removed and the DNA is counterstained for visualisation. Fluorescence microscopy then allows the visualisation of the hybridised probe on the target material.

Probe Specification

Satellite probes are specific for human chromosomes and are highly repeated human DNA sequences found in the centromere, pericentromeric or heterochromatic block of each of the 24 chromosomes. The probes are directly labelled with a blue fluorophore. For detailed probe specifications refer to Table 1.

Table 1: Probe Specifications

Chr	Catalogue Number*	Locus	Chromosome Region	DNA Class
8	LPE 008B-A	D8Z2	8p11.1-q11.1	α -satellite
12	LPE 012B-A	D12Z3	12p11.1-q11.1	α -satellite
17	LPE 017B-A	D17Z1	17p11.1-q11.1	α -satellite

*B specifies a blue label

Each probe vial contains only one of the probes from the range of directly labelled human alpha satellite probes.

Materials Provided

Probe: 30 μ l per vial

Amount of blue D8Z2 probe: 21.2-30.5ng/ μ l

Amount of blue D12Z3 probe: 6.4ng/ μ l

Amount of blue D17Z1 probe: 4.8ng/ μ l

The probe is produced in a concentrated form. It is labelled with a blue fluorophore. The probe is provided in hybridisation solution (Formamide; Dextran Sulphate; SSC).

Warnings and Precautions

1. For professional use only.
2. Wear gloves when handling DNA probes.
3. Probe contains formamide, which is a teratogen; do not breathe fumes or allow skin contact. Wear gloves, a lab coat, and handle in a fume hood. Upon disposal, flush with a large volume of water.
4. Dispose of all hazardous materials according to your institution's guidelines for hazardous waste disposal.
5. Operators must be capable of visually distinguishing between red, blue and green.

Storage and Handling

The probe should be stored between -25°C to -15°C in a freezer until the expiry date indicated on the kit label. The probe vial must be stored in the dark. Please ensure that exposure of the probe to laboratory lights is limited at all times.

Known Cross-Reactivity

The LPE 017B-A probe may show faint cross hybridisation to the centromeric region of chromosome 11.

Additional Information

For additional product information please contact the CytoCell Technical Support Department.

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Patents and Trademarks

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