A Sysmex Group Company

CytoCell

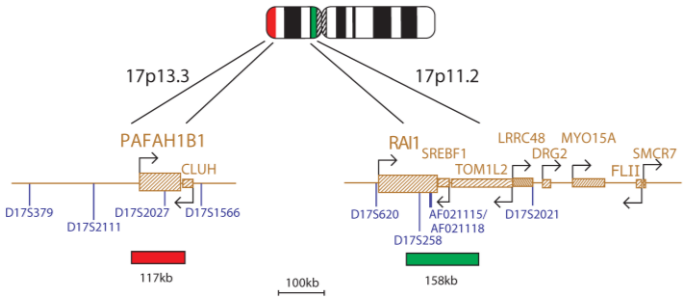
Smith-Magenis (RAI1) Region/Miller-Dieker Region Probe

REF: LPU 019-SA / LPU 019-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
LIS1 (PAFAH1B1), 17p13.3, Red
RAI1, 17p11.2, Green



The Miller-Dieker (LIS1) probe is 117kb, labelled in red and covers the entire LIS1 (PAFAH1B1) gene. The Smith-Magenis (RAI1) probe is 158kb, labelled in green and covers the centromeric end of the RAI1 gene and includes the D17S258 marker. The two unique sequences act as control probes for each other and allow identification of chromosome 17.

Materials Provided
Probe: 50µl per vial or 100µl per vial
Probe concentration: Amount of red probe 2.00-3.37ng/µl
Amount of green probe 1.03-1.55ng/µl

The probe is provided in hybridisation solution (Formamide; Dextran Sulphate; SSC) and is ready to use.

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 kit should be stored between -25ºC to -15ºC in a freezer until the expiry date indicated on the kit label. Ensure that exposure of the probe to laboratory lights is limited at all times.

Known Cross-Reactivity
No known cross-reactivity.

Additional Information
For additional product information please contact the CytoCell Technical Support Department.
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Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP):

GHS07 GHS08

Signal word (CLP): Danger

Hazardous ingredients: Formamide <100%

Hazard statements (CLP):

H315 – Causes skin irritation
H319 – Causes serious eye irritation
H360 – May damage fertility or the unborn child

Precautionary statements (CLP):

P202 – Do not handle until all safety precautions have been read and understood
P280 – Wear eye protection, protective clothing, protective gloves
P302+P352 – IF ON SKIN: Wash with plenty of soap and water
P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308+P313 – IF exposed or concerned: Get medical advice/attention
P362+P364 – Take off contaminated clothing and was it before reuse
P501 – Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

Refer to Safety Data Sheet for more information.

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Patents and Trademarks
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