



A Sysmex Group Company



## SHOX Probe

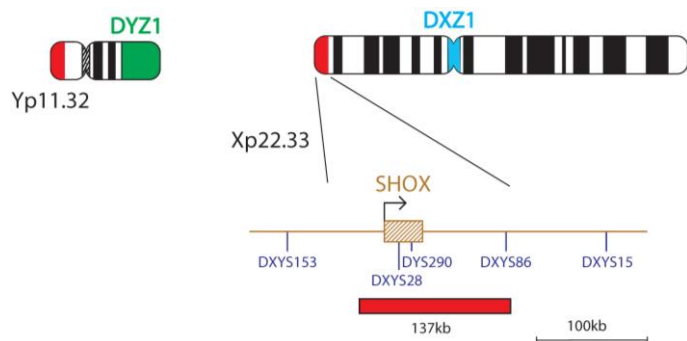
REF: LPU 025-SA/LPU 025-A

**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

SHOX, Xp22.33/Yp11.32, Red  
DYZ1, Yq12, Green  
DXZ1, Xp11.1-q11.1, Blue



The SHOX probe is 137kb, labeled in red and covers a region including the entire SHOX gene and flanking DNA on chromosomes Y and X. The probe mix also contains control probes for the X centromere (DXZ1) labeled in blue, and for chromosome Y (DYZ1, the heterochromatic block at Yq12) labeled in green.

### Materials Provided

**Probe:** 50µl per vial or 100µl per vial

Probe concentration: Amount of red probe 1.75-2.95ng/µl  
Amount of green probe 2.40-3.60ng/µl  
Amount of blue probe 10.2-14.6ng/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 -25°C to -15°C in a freezer until the expiry date indicated on the kit label. Store the probe vial in the dark. 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.

T: +44 (0)1223 294048  
E: techsupport@cytoCELL.com  
W: www.ogt.com

### 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 wash 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.

### Patents and Trademarks

CytoCell is a registered trademark of CytoCell Ltd.

This product contains technology licensed from Life Technologies Corporation that is available for human diagnostics or life science research use only.



**CytoCell Ltd.**  
Oxford Gene Technology,  
418 Cambridge Science Park,  
Milton Road,  
Cambridge, CB4 0PZ, UK  
T: +44(0)1223 294048  
F: +44(0)1223 294986  
E: probes@cytoCELL.com  
W: www.ogt.com