

# The FISHing Line™

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**Give us your comments!**

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I would like to enrol for a European Cytogenetics Workshop held in Strasbourg, France:

Metaphase/Interphase Workshop, June 20-21 2002

Tissue (FISH on PETS) Workshop, September 12-13 2002

Metaphase/Interphase Workshop, December 5-6 2002

Please send me further information on the new B-CLL DNA Probes

Please send me further information on the new MDS-AML DNA Probes

Please send me further information on the new Prenatal DNA Probes

Please send me further information/order form for the Band specific custom labelling service

Do you want to receive the FISHing Line in the future? yes  no

**France and all other countries:**

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# The FISHing Line™



*is now!*

molecular  
cytogenetics



## Now Available - New Oncology Probes

### B-CLL Probes

PONC0824	8q24 (c-myc) DNA Probe with Alpha-Satellite 8, dual-color
PONC1123	11q23 (ATM) DNA Probe, Red
PONC1213	12q13 (GLI3)1 DNA Probe, Red
PONC1210	12q13 (GLI3) DNA Probe with Alpha-Satellite 12, dual-color
PONC1325	13q14 (13S272) DNA Probe
PONC1753	17p13.1 (p53) DNA Probe with Alpha-Satellite 17, dual-color

This probe portfolio is based on publications by H. Döhner et al., in N Eng J Med 2000; 343, 1910-6.

These direct labeled probes have been tested and qualified on cultured cells, blood smears and paraffin-embedded tissue sections.

A special price will apply for the complete panel of the 5 probes (cat# PONC5CLL). For further information, please inquire.

### MDS – AML Probes

PONC0531	5q31 (D5S89) specific DNA Probe, Red
PONC0722	7q22 (MDS1) specific DNA Probe, Red
PONC0735	7q35 specific DNA Probe, Red
PONC0740	7q22 (MDS1) / 7q35 Cocktail Probe, Dual-Color

The "5q- syndrome" has been described as the most common chromosomal feature in primary MDS, while it has been described as indicative of secondary leukemia in AML.

Furthermore, -7/7q- occur in MDS and AML that develop in patients with constitutional disorders (e.g. Kostmann's syndrome). Clinically, myeloid leukemias exhibiting - 7/7q - are characterized by poor response to chemotherapy and short survival times. At the molecular level two different commonly deleted regions (CDR) were identified: a proximal CDR that encompasses chromosomal bands 7q22-q31.1 and a distal CDR that is located in 7q35-q36.

#### Related Product:

PSAT0708 Chromosome. 7 & 8 Satellite Cocktail, Dual-color

### 1p36 Midisatellite Probe

PONC0136 Chromosome 1p36 Midisatellite Probe, Green

Deletions at 1p36 have been described as the most common cytogenetic abnormality in neuroblastoma (Mitelman, 1995). A similar probe had to be discontinued some years ago. We are happy to be able to release this directly labeled probe for the same region .

#### Related Product:

PSAT0001-R Chr. 1 Classical Satellite (1qh) Probe, Red

## Introducing a new colour

### Nucleic Acid Labelling Kit – DEAC (Aqua)

The DEAC or Aqua labeling kit is part of our Nucleic Acid labeling Kits product line based on the Universal Linkage System (ULS®) which uses a special platinum compound. Due to a specially designed linker arm this blue fluorophore will give optimal signal for single-stranded, double-stranded, linear or supercoiled DNA, RNA or whole chromosomes. Purified PCR products can also be labeled with DEAC-ULS®.

For the direct visualization of the fluorescence of DEAC-ULS®, please note that the maximum excitation wavelength ( $\lambda_{ex}$  max) = 429 ± 5 nm and the maximum emission wavelength ( $\lambda_{em}$  max) = 476 ± 5 nm.

#### DLKA06 Aqua Direct Labelling Kit

The Universal Linkage System (ULS®) technology is covered by an international patent family for the linkage of any label to bio-organic molecules, owned by KREATECH Biotechnology BV, The Netherlands.

### Chromosome 18 Alpha Satellite DNA Probe, Blue

This probe is developed using the DEAC-ULS® chemical labelling system. In combination with the XY Satellite probe cocktail (PSAT2324) the Chromosome 18 Alpha Satellite was clearly visible in a conventional Triple Band Pass filter (S1900 DAPI/FITC/Texas Red).

The probe is provided concentrated to allow mixing with other probes (e.g. CP5315-DC 13/21 Unique Sequence Probe Cocktail, Dual-color or PSAT2324 Chr. X & Y Satellite Combination, Dual-color)

PSAT0018-A Chr. 18 Satellite DNA Probe (D18Z1), Blue  
10 Tests (20 µl Probe + 80 µl Hybridization Buffer)

# The Technical Advisor

## Protocol for Chemical Labelled Probes

## Comments:

### Slide Pretreatment:

2XSSC, pH 7.0 / 0.5% Igepal at 37°C for 30 minutes. Dehydrate in 70%, 80%, and 95% Ethanol for 2 minutes each.

For difficult specimens further digestions (e.g. Pepsin pretreatment) is recommended.

### Probe Preparation:

Pre-warm probe at 37°C for 5 minutes. Vortex gently and centrifuge for 2-3 seconds. Denature at 96C(± 2°C) for 5 minutes, then centrifuge 2-3 seconds. Use preheated probe within 15 min.

Although good signals can be obtained without this additional probe denaturation step it helps to further minimize unspecific background.

### Codenaturation:

Apply 10 µl of probe per slide. Seal with glass coverslip sealant or equivalent. Denature sample and probe on a hot plate at 80°C for 2 minutes.

The 2 minute denaturation at 80°C has been verified in our labs as the optimal condition. However, if 5 minutes denaturation at 72-75°C is used, the results are not different. It is therefore possible to use the chemical probes on automated systems (e.g. Hybrite) or combine probes from different vendors.

### Separate Denaturation:

70% Formamide /2XSSC, pH7.0 at 70°C (± 2°C) for 2 minutes. Dehydrate in ice cold (-20°C) 70%, 80%, and 95% Ethanol for 2 minutes each.

### Post-Hybridisation Wash

Wash slides in 1x Wash Buffer (0.5X SSC/ 0,1%SDS) for 5 minutes at 65°C without agitation. Place slide for 5 minutes in 1 X PBD at room temperature. Proceed to counterstaining.

This new wash buffer has given us best results with very low background. However, Formamide washes, straight 0,5X SSC will give also satisfactory results.

**Alternative:** For shorter hybridisations (e.g. 2 hours) wash the slides at 37°C in 1X Wash Buffer. If non-specific binding is observed, rewash the same slide at 65°C.

For difficult specimens (e.g; high cytoplasm content) reduction in stringency conditions is recommended. It is always possible to start post-hybridization washes at low stringency and rewash at higher stringency if cross-hybridization becomes visible. But once you washed away your signal it is gone.

If non-specific binding is observed after washing at 65°C the same slide can be rewashd at 72°C in 1X Wash Buffer.

# Human Band Specific Probes

Due to changes in supplier, we are unable to provide the Human Band Specific Probes as described in our Molecular Cytogenetic Catalogue 2001/2002 (Chapter 8).

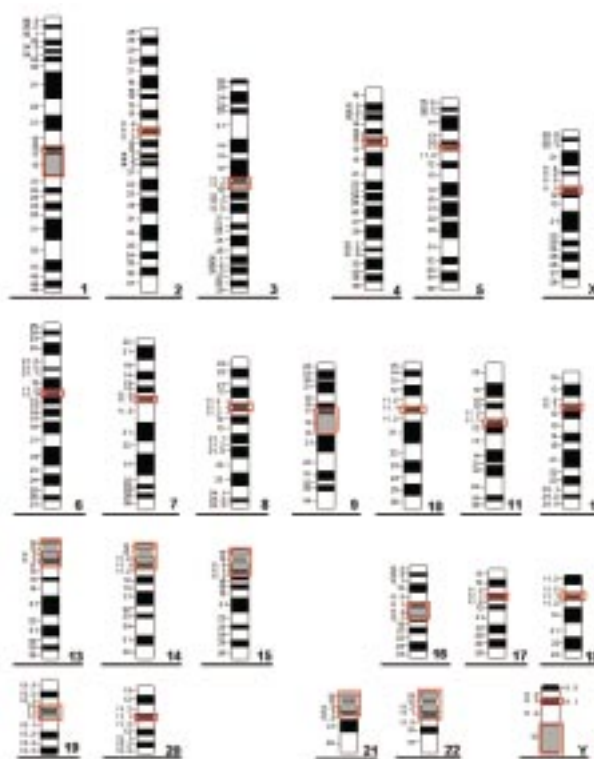
However, we are introducing now a Human Band Specific Probe custom service.

This service will provide to you already labeled Human Band Specific Probes. The approximate size of bands is indicated in the ideogram below. If more defined regions are desired, we will discuss it with our lab.

**For further details on this service, please contact:**

techserveur@qbiogene.com

or any of our specialists or your local distributor



Regions not available

Approximate probe size

# New Team Members

We welcome back to Qbiogene Roman Giraldez as International Business manager working out of the German (Heidelberg) and Illkirch offices. Roman has 15 years experience in cytogenetics and is former employee of Oncor Inc in the USA and Appligene-Oncor, Europe. Here he gained extensive FISH experience as product manager in Europe for the HER-2/neu assay.  
Tel. +49 (0)621 431 6231 Cel. +49 (0)172 630 6654  
e-mail: rgiraldez@qbiogene.com

We also welcome to the German and European FISH team Jürgen Froestl. Jürgen has been with Qbiogene for two years and because of his wealth of FISH experience will now be dedicated to molecular cytogenetics.

Tel: ++49 (0)89 / 6939 8781 e-mail: jfroestl@qbiogene.de

*We also have a new baby FISH team member, Roslyn Carruthers gave birth on 23rd March to Daniel James. Ros has left us now and we all wish her and Daniel well.*

## UPCOMING CONFERENCES

23-24 May	Hereditary Cancer - prophylaxis, diagnostic, treatment. Miedzzydroje, organized by Polish Society of Human Genetics
13-15 June	Residential Training Course on Medical Genetic S. Giovanni Rotondo (FG), Italy
20-23 June	Association of Genetic Technologists (AGT) Cincinnati, Ohio
4-6 July	Quantitative Molecular Cytogenetics III Rosenön, Stockholm, Sweden
12-15 September Tumours	8th European Workshop on Cytogenetics and Molecular Genetics of Human Solid Barcelona, Spain
16-18 September	ACLF Toulouse, France
16-18 September	III Meeting of Polish Society of Human Genetics Poznan, Poland
22-25 September	British Society of Human Genetics York, UK
25-28 September	5th Congress of Italian Society fo Human Genetic Verona, Italy
29 September- 2 October	13th Annual Meeting of the German Society of Human Genetics Leipzig, Germany
8-10 October	Biotech Forum/Medicion Valley Malmö, Sweden
15-19 October	ASHG Baltimore, USA
26-30 October	DGHO Munich, Germany
28-30 November	6th Congres de Medecine Foetale Cannes, France

### FISH WORKSHOPS at Qbiogene, Illkirch, France

Metaphase/Interphase Molecular Cytogenetics 2-Day Workshop, June 20 - 21, December 5 - 6  
Tissue Molecular Cytogenetics (FISH on PETS) 2-Day Workshop, September 12 - 13