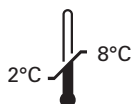


## Kreatech™ FISH probes Product Information Sheet

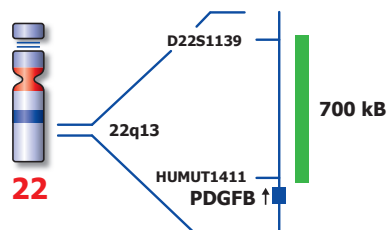
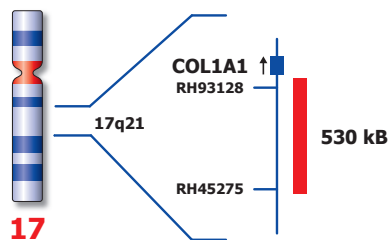
KBI-10742  
COL1A1/PDGFB t(17;22) Dual-Color,  
Single-Fusion



**Kreatech Biotechnology B.V.**  
Vierweg 20  
1032 LG Amsterdam  
The Netherlands  
[www.LeicaBiosystems.com](http://www.LeicaBiosystems.com)

PI-KBI-10742\_D1.1

Published March 2015



Not to scale

## Kreatech™ COL1A1/PDGFB t(17;22) Dual-Color, Single-Fusion FISH Probe

### Introduction:

The diagnosis of primary soft tissue and bone tumors is often challenging, as they are relatively rare. The misdiagnosis between dermatofibroma (DF), a benign neoplastic lesion and dermatofibrosarcoma protuberans (DFSP) or giant cell fibroblastoma (GCF) might result in improper primary management. DFSP and GCF have in most cases diagnosed today by a translocation involving the **COL1A1** (collagen, type I, alpha 1) gene at 17q21 and the **PDGFB** (platelet-derived growth factor beta polypeptide) gene at 22q13. Also, a supernumerary ring chromosome derived from the translocation t(17;22) can be present. Treatment with imatinib is approved by the FDA for adult patients with unresectable, recurrent, and/or metastatic DFSP.

### Intended use:

The **COL1A1/PDGFB t(17;22) Dual-Color Single-Fusion Probe** is optimized to detect the t(17;22)(q21;q13) involving the COL1A1 (17q21) and PDGFB (22q13) gene regions in a dual-color, single-fusion assay on FFPE tissue sections.

The probe is recommended to be used in combination with one of the Kreatech Pretreatment kits providing necessary reagents to perform FISH on various sample types for optimal results (see also [www.LeicaBiosystems.com](http://www.LeicaBiosystems.com) and look for Kits & reagents).

### Critical region 1 (red): Critical region 2 (green):

The **distal COL1A1 (17q21) gene** region probe is direct-labeled with PlatinumBright™550.  
The **proximal PDGFB (22q13) gene** region probe is direct-labeled with PlatinumBright™495.

### Reagent:

Kreatech probes are direct-labeled DNA probes provided in a ready-to-use format. Apply 10 µl of probe to a sample area of approximately 22 x 22 mm.

**Please refer to the Instructions for Use for the entire Kreatech FISH protocol.**

**Kreatech FISH probes are REPEAT-FREE™ and therefore do not contain Cot-1 DNA. Hybridization efficiency is increased and background, due to unspecific binding, is highly reduced.**

### Interpretation:

The **COL1A1/PDGFB t(17;22) Dual-Color, Single-Fusion** probe is designed as a dual-color single-fusion probe to detect the t(17;22)(q21;q13) translocation. A fusion is defined when separate red and green signals fuse to a red/green or yellow fusion signal (F). Only red and green signals which are less than one signal diameter apart from each other are counted as a fusion. Single red (R) and green (G) signals identify the normal chromosome(s) 17 and 22, respectively. Signal patterns other than those described above may indicate variant translocations, deletions on der(17), der(22) or other complex rearrangements. Investigators are advised to analyze metaphase cells for the interpretation of atypical signal patterns.

	Normal Signal Pattern	t(17;22)	r(17;22)
Expected Signals	2R2G	1F1R1G	2R2G ≥1F

### References:

Maire et al, 2007, Arch Dermatol, 143; 203-210  
Labropoulos et al, 2007, Biologics, 1; 347-353  
Patel et al, 2008, Hum Path, 39; 184-193  
Sandberg, 2003, Cancer Genet Cytogenet, 140; 1-12

**Warning and precautions:** In case of emergencies check SDS sheets for medical advice. SDS sheets may be obtained by either contacting Leica Technical Support or visiting [www.LeicaBiosystems.com](http://www.LeicaBiosystems.com). DNA probes contain formamide which is a teratogen; do not inhale or allow skin contact. Wear gloves and a lab coat when handling DNA probes. All materials should be disposed of according to your institution's guidelines for hospital waste disposal.

### Reagent Storage and Handling:

Store at 2-8 °C. Reagents should not be used after the expiration date on the vial label.

### TECHNICAL SUPPORT

Technical support is available at [www.LeicaBiosystems.com](http://www.LeicaBiosystems.com) or +31 20 6919181 or via e-mail: [kreatech-support@leicabiosystems.com](mailto:kreatech-support@leicabiosystems.com).

### CUSTOMER SERVICE

Kreatech probes may be ordered through Leica Customer Service +31 20 6919181 or order via e-mail: [purchase.orders@leica-microsystems.com](mailto:purchase.orders@leica-microsystems.com).