

# Kreatech™ FISH probes

## Product Information Sheet

KBI-10613

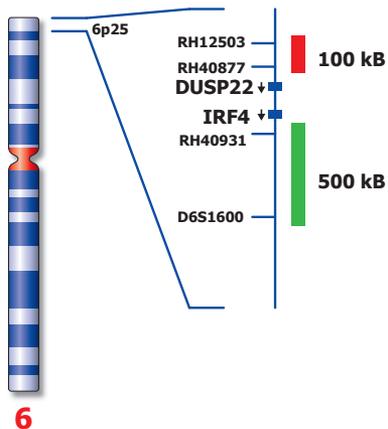
IRF4 / DUSP22 (6p25) Break



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Not to scale

## Kreatech™ IRF4 / DUSP22 (6p25) Break FISH probe

### Introduction:

Rearrangements of the 6p25.3 locus define a subtype of cutaneous CD30 positive T-cell lymphomas (CTCL). Genes rearranged at the 6p25.3 locus are IRF4 (Interferon regulatory factor 4, 6p25.3) (also known as MUM1) and the lately described DUSP22 (dual specificity phosphatase 22). FISH positivity for the IRF4 translocation showed to be highly specific (99%) for CD30 positive primary cutaneous anaplastic large cell lymphoma cases which makes FISH a useful adjunct in the differential diagnosis of CTCL. Rearrangements of the 6p25.3 locus have also been described to occur in high and low grade B-cell lymphomas, myeloma and chronic B-cell lymphoid leukemia. The IRF4 / DUSP22 (6p25) Break probe detects both rearrangements involving IRF4 and DUSP22, but does not distinguish them from each other.

### Intended use:

The **IRF4 / DUSP22 (6p25) Break** FISH probe is optimized to detect translocations involving the IRF4 / DUSP22 gene region at the 6p25.3 locus in a dual-color assay.

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):

The region distal to **IRF4 / DUSP22 (6p25)** is direct-labeled with PlatinumBright™550.

### Critical region 2 (green):

The region proximal to **IRF4 / DUSP22 (6p25)** 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 **IRF4 / DUSP22 (6p25) Break** FISH probe is designed as a dual color split probe to detect translocations at 6p25. A split or break is defined as a red/green or yellow fusion signals (F) splitting into separate red (R) and green (G) signals. Two co-localized red/green or yellow signals (2F) identify the normal chromosome(s) 6.

Signal patterns other than those described above may indicate variant translocations, deletions or amplifications on der(6) or other complex rearrangements. Investigators are advised to analyze metaphase cells for the interpretation of atypical signal patterns.

	Normal Signal Pattern	6p25 Break
Expected Signals	2F	1F1R1G

### References:

Bisig et al., Best Pract Res Clin Haematol, 2012, 25: 13-28  
 Feldman et al., Blood, 2011, 117: 915-919  
 Karai et al., Am J Surg Pathol, 2013 [Epub ahead of print]  
 Pham-Ledard et al., J Invest Dermatol, 2010, 130: 816-825  
 Salaverria et al., Blood, 2011, 118: 139-147  
 Wada et al., Mod Pathol, 2011, 24: 596-605

**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).