

# Kreatech™ FISH probes

## Product Information Sheet

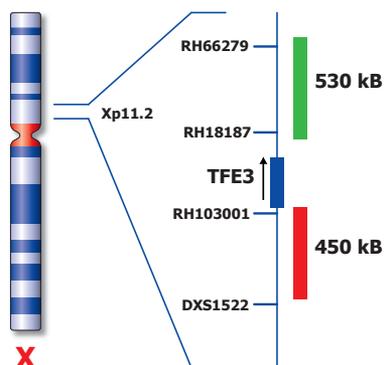
KBI-10741  
TFE3 (Xp11) Break



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Not to scale

## Kreatech™ TFE3 (Xp11) Break FISH probe

**Introduction:** Abnormalities of the Xp11.2 region have often been observed in papillary renal cell carcinomas and are sometimes the sole cytogenetic abnormality present. The transcription factor binding to IGHM enhancer 3 (TFE3) gene, which encodes a member of the helix-loop-helix family of transcription factors, is located in this critical region and can be fused to various other chromosomal regions by translocation. Known fusion partners are NONO (Xq12), PRCC (1q21), SFPQ (1p34), CLTC (17q23) and ASPSCR1 (17q25).

**Intended use:** The **TFE3 (Xp11) Break** FISH probe has been optimized to detect translocations involving the TFE3 gene region at Xp11.2 in a dual-color, split 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 **proximal TFE3** gene region probe is direct-labeled with PlatinumBright™550.  
**Critical region 2 (green):** The **distal TFE3** 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 **TFE3 (Xp11) Break** FISH probe is designed as a dual-color split probe to detect translocations at Xp11. A break is defined as a split of a red/green or yellow fusion signal (F) into separate red and green signals. Only red and green signals which are more than one single diameter apart from each other are counted as a break. Co-localized red/green or yellow signals identify the normal chromosome(s) X.

	Normal Signal Pattern	Xp11 Split
Expected Signals	2F	1F1R1G

**References:** Sidhar et al, 1996, Hum. Mol. Genet., 5; 1333-1338  
 Weterman et al., 1996, Proc Natl. Acad Sci, 93; 15294-15298  
 Armah, Pawani, 2010, Arch. Pathol. Lab. Med, 134; 124-129

**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).