Kreatech™ FISH probes

Product Information Sheet

KBI-10726

TMPRSS2-ERG (21q22) Deletion, Break, Triple-Color

IVD

DANGER

FORMAMIDE

2°C 8°C

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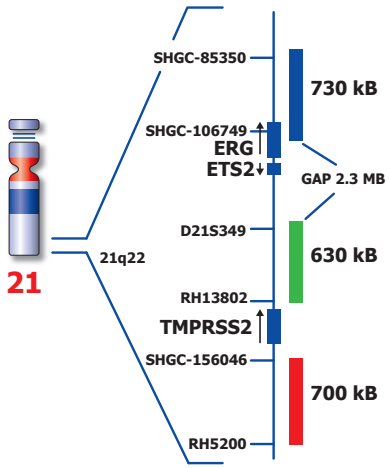

Not to scale

KBI-10726

Kreatech™ TMPRSS2-ERG (21q22) Deletion, Break, Triple-Color FISH probe

Introduction: The transmembrane protease, serine 2 gene (**TMPRSS2**) is involved in gene fusions with **ERG**, ETV1 or ETV4 in prostate cancer. In recent studies it has been described that the expression of the TMPRSS2-ERG fusion gene is a strong prognostic factor for the risk of prostate cancer recurrence in prostate cancer patients treated by surgery

Intended use: The **TMPRSS2-ERG** (21q22) Deletion, Break, Triple-Color FISH probe is optimized to detect the deletion between TMPRSS2 and ERG at 21q22 associated with the TMPRSS2-ERG fusion in a triple-color deletion assay. It also detects translocations involving the TMPRSS2 region such as t(12;21), t(7;21), or t(17;21).

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 and look for Kits & reagents)

Critical region 1 (red): The distal **TMPRSS2 (21q22)** gene region probe is direct-labeled with Platinum*Bright*™550.
Critical region 2 (green): The proximal **TMPRSS2 (21q22)** gene region probe is direct-labeled with Platinum*Bright*™495.
Critical region 3 (blue): The **ERG (21q22)** gene region is direct-labeled with Platinum*Bright*™415.

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 **TMPRSS2-ERG (21q22) Deletion, Break, Triple-Color** FISH probe is designed as deletion probe, where loss of the proximal TMPRSS2 region is observed as loss of a green signal leaving a red/blue signal at 21q22. Split of the probe in case of a translocation at 21q22 results in a break of the fusion signal, observed as a single red and green/blue signal pattern at the derivative chromosomes. Only red and green/blue signals which are more than one signal diameter apart from each other are counted as a break. Single color fusion (RGB) signals will identify the normal chromosomes 21.

Signal patterns other than those described above may indicate variant translocations or other complex rearrangements. Investigators are advised to analyze metaphase cells or use additional probes for the interpretation of atypical signal patterns.

	Normal Signal Pattern	Del(21q22) TMPRSS2-ERG Fusion	Break TMPRSS2
Expected Signals	2RGB	1RGB1RB	1RGB1BG1R

References:
Perner et al, 2006 Cancer Res 66(17) ; 8337-8341
Hermans et al, 2006, Cancer Res 66(22); 10658-10663
Attard et al, 2008, Oncogene 27; 253-263

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. 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 or +31 20 6919181 or via e-mail: 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.