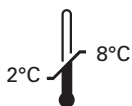


Kreatech™ FISH probes Product Information Sheet

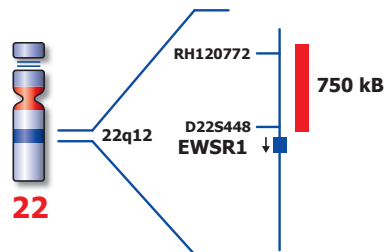
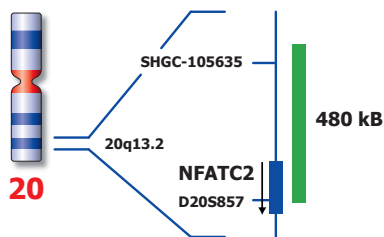
KBI-10751
EWSR1/NFATC2 t(20;22) Dual-Color,
Single-Fusion



Kreatech Biotechnology B.V.
Vierweg 20
1032 LG Amsterdam
The Netherlands
www.LeicaBiosystems.com

PI-KBI-10751_D1.1

Published March 2015



Not to scale

Kreatech™ EWSR1/NFATC2 t(20;22) Dual-Color, Single-Fusion FISH probe

Introduction:

Ewing's sarcoma is the second most frequent primary bone cancer. In most cases a translocation involving the **EWSR1** gene at 22q12 and the **FLI1** gene at 11q24 is observed. Several other translocation partners (ERG, ETV1, FEV, and ETV4) can also be involved, all of which are members of the ETS gene family. The first non-ETS family translocation partner described is the **NFATC2** gene (nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 2) at 20q13. The EWSR1/NFATC2 single fusion probe is best used to analyze the specific translocations of the EWSR1 and NFATC2 gene on formalin fixed paraffin embedded tissue for routine clinical diagnosis. For analyzing translocations involving other translocation partners, the EWSR1 split probe is recommended (KBI-10750).

Intended use:

The **EWSR1/NFATC2 t(20;22) Dual-Color, Single-Fusion** FISH probe is optimized to detect the translocation t(20;22)(q13;q12) 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 and look for Kits & reagents)

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

The **proximal EWSR1** gene region probe is direct-labeled with PlatinumBright™550. The **proximal NFATC2** 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 **EWSR1/NFATC2 t(20;22) Dual-Color, Single-Fusion** FISH probe is designed as a dual-color single fusion probe to detect the t(20;22)(q13;q12) translocation. A fusion is defined as a fusion of separate red and green signals into 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 and green signals identify the normal chromosome(s) 20 and 22. Signal patterns other than those described above may indicate variant translocations, deletions on der(20), der(22) or other complex rearrangements. Investigators are advised to analyze metaphase cells for the interpretation of atypical signal patterns.

	Normal Signal Pattern	t(20;22)
Expected Signals	2R2G	1F1R1G

References:

Szuhai et al, 2009, Clin Cancer Res, 15; 2259-2268.
Zucman-Rossi et al, 1998, PNAS, 95; 11786-11791.
Bernstein et al, 2006, Oncologist, 11; 503-519.

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 formaldehyde 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.