Leica
BIOSYSTEMS

Kreatech™ FISH probes
Product Information Sheet

KBI-10108
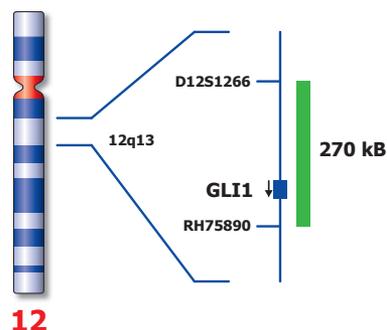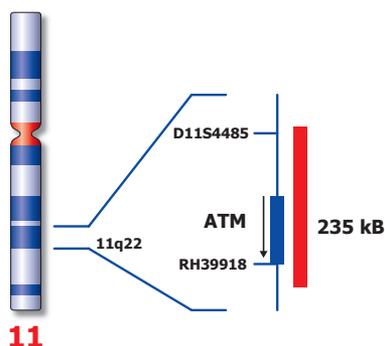ATM (11q22) / GLI1 (12q13)

IVD

CE

DANGER

FORMAMIDE

2°C — 8°C

PI-KBI-10108_D1.1

Published March 2015

11

D11S4485

ATM

RH39918

11q22

235 kB

12

D12S1266

12q13

GLI1

RH75890

270 kB

Not to scale

Kreatech™ ATM (11q22) / GLI1 (12q13) FISH probe

Introduction:
Deletions of the long arm of chromosome 11 (11q) are one of the most frequent structural chromosome aberrations in various types of lymphoproliferative disorders. A critical genomic region located in bands 11q22.3-q23.1 has been identified and contains among other genes the ATM (ataxia telangiectasia mutated) gene.

Trisomy 12 is a frequent abnormality in chronic lymphocytic leukemia (CLL). A minimal duplicated region has been identified at 12q13, including the GLI1 and CDK4 gene regions, which is amplified in additional 5% of CLL patients not showing Trisomy for the whole chromosome 12.

Intended use:
The **ATM (11q22)** specific FISH probe is optimized to detect copy numbers of the ATM gene region at 11q22.
The **GLI1 (12q13)** specific FISH probe is optimized to detect copy numbers of the GLI1 gene region at 12q13.

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 **ATM (11q22)** specific FISH probe is direct-labeled with Platinum*Bright*™550.
Critical region 2 (green): The **GLI1 (12q13)** specific FISH probe is direct-labeled with Platinum*Bright*™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 **ATM (11q22) / GLI1 (12q13)** FISH probe is designed as a dual-color assay to detect deletions at 11q22 and amplifications at 12q13. Deletions involving the ATM gene region will show one red signal and two green signals for the GLI1 region at 12q13 (1R2G). Amplifications involving the GLI1 gene region will show three or more green signals and two red signals for the ATM region at 11q22 (2R3+G). Deletions and Amplifications involving both critical regions at 11q22 and 12q13 will show one red and three or more green signals (1R3+G). Two single color red (R) and green (G) signals will identify the normal chromosomes 11 and 12 (2R2G).

	Normal Signal Pattern	Del(11q22)	Amp(12q13)
Expected Signals	2R2G	1R2G	2R3+G

References:
Boultwood J, 2001, J. Clin. Pathol., 54; 512-516
Dierlamm J et al, 1998, Genes Chromosomes Cancer, 20; 155-166

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.