

Kreatech™ FISH probes

Product Information Sheet

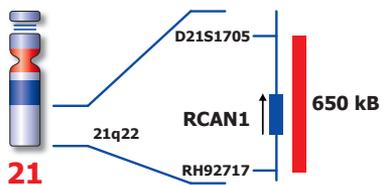
KBI-40002
RCAN1 (21q22)



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Not to scale

Kreatech™ RCAN1 (21q22) FISH probe

- Introduction:** Trisomy 21 is one of the most common chromosomal abnormalities in live born children and causes Down syndrome, a particular combination of phenotypic features that includes mental retardation and characteristic facies. Molecular analysis has revealed that the 21q22.1-q22.3 region appears to contain the gene(s) responsible for the congenital heart disease observed in Down syndrome.
- Intended use:** The **RCAN1 (21q22)** FISH probe is optimized to detect copy numbers of chromosome 21 at 21q22 on uncultured amniotic cells.

This FISH assay will not detect the presence of structural chromosome abnormalities that can also result in birth defects

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 **RCAN1 (21q22)** FISH probe is direct-labeled with PlatinumBright™550.

- 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 **RCAN1 (21q22)** FISH probe is designed as a single-color assay to detect gains of chromosome 21. Trisomy 21 will be detected by three red signals at the 21q22 region. Two single color red (R) signals will identify the normal chromosomes 21 (2R).

	Normal Signal Pattern	Trisomy 21
Expected Signals	2R	3R

- References:** Korenberg J. et al, 1994, Proc. Nat. Acad. Sci. 91; 4997-5001
Spathas D et al, 1994, Prenat Diagn. 14(11); 1049-1054
Tepperberg et al, 2001, Prenat Diagn 21(4); 293-301

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.