# Kreatech™ FISH probes

## Product Information Sheet

KBI-10739

ERCC1 (19q13) / ZNF443 (19p13)

IVD

DANGER

FORMAMIDE

2°C 8°C

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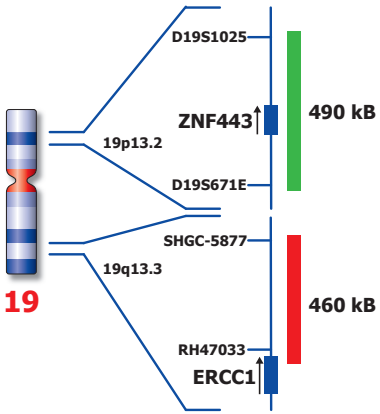


Not to scale

KBI-10739

# Kreatech™ ERCC1 (19q13) / ZNF443 (19p13) FISH probe

**Introduction:**

Nucleotide excision repair (NER) is the primary DNA repair mechanism that removes platinum-DNA adducts from genomic DNA. Excision repair cross-complementation group 1 (ERCC1) is a critical gene in the NER pathway. A growing list of reports links cisplatin, carboplatin, and oxaliplatin based chemotherapy resistance to ERCC1 expression levels in several tumors. This relationship has been suggested for patients with gastric, bladder, ovarian, colorectal and non–small-cell lung cancers (NSCLC). ERCC1 has been shown to be an important marker to predict responsiveness to cisplatin-based chemotherapy. Low ERCC1 gene expression correlates with prolonged survival after cisplatin-based chemotherapy

**Intended use:**

The **ERCC1 (19q13)** specific FISH probe has been optimized to detect copy numbers of the ERCC1 gene region at 19q13. The **ZNF443 (19p13)** specific FISH probe is included to facilitate chromosome identification

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 **ERCC1 (19q13)** gene region probe is direct-labeled with Platinum*Bright*™550.
**Control region 2 (green):** The **ZNF443 (19p13)** gene region 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 **ERCC1 (19q13) / ZNF443 (19p13)** FISH probe is designed as a dual-color assay to detect amplifications or deletions at 19q13. Amplifications involving the ERCC1 gene region at 19q13 will show several red signals. Two single color red and green signals will identify the normal chromosomes 19 (2R2G).

| | Normal Signal Pattern | 19q13 Deletion | 19q13 amplification |
|---|---|---|---|
| Expected Signals | 2R2G | 1R2G | 3+R2G |

**References:**

Olaussen et al, 2006, N. Engl. J. Med. 335; 983-991
Ceppi et al, 2006, Ann. Oncol. 17; 1818-1825

**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.