

Poseidon™ Repeat Free™ Cervical Cancer probe hTERC (3q26), C-MYC (8q24) & SE 7 Control probe

Introduction: Amplification of 3q is a frequently observed aberration in a variety of tumors. The hTERC (RNA component of Telomerase) gene is a possible candidate cancer gene and is located within a critical region at 3q26. Amplification of C-MYC has been described in many types of tumors. Multiple copies of the gene may be evidenced in homogeneously staining chromosomal regions and in double minutes. Both sites, 3q26 and 8q24, are potential intergration sites for HPV (human papilloma virus) and have been described to be amplified in early stages of cervical cancer. Chromosome 7 is not reported to be involved in cervical cancer and is used as control probe for aneuploidy.

Intended use: The **hTERC (3q26)** specific DNA Probe is optimized to detect copy numbers of the hTERC gene region at region 3q26. The **C-MYC (8q24)** specific DNA Probe is optimized to detect copy numbers of the C-MYC gene region at 8q24. The Chromosome 7 Satellite Enumeration (SE) probe is included as aneuploidy control.

The probe is recommended to be used in combination with a Poseidon FISH Kit providing necessary reagents to perform FISH (KBI-60002, KBI-60003 or KBI-60001) for optimal results.

Critical region 1 (red): The **hTERC (3q26)** specific DNA probe is direct-labeled with PlatinumBright550.

Critical region 2 (green): The **C-MYC (8q24)** specific DNA probe is direct-labeled with PlatinumBright495.

Control region 3 (blue): The **SE 7** control probe is direct-labeled with PlatinumBright415

Reagent: Poseidon 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 Poseidon FISH protocol.



Poseidon Repeat Free probes do not contain Cot-1 DNA. Hybridization efficiency is therefore increased and background, due to unspecific binding, is highly reduced.

Interpretation: The **Cervical Cancer** probe is designed as a triple-color assay to detect amplification at 3q26 and 8q24. Amplification involving the hTERC gene region at 3q26 will show three or more red signals and two signals for C-MYC at 8q24 and the 7cen probe. Amplification involving the C-MYC gene region at 8q24 will show three or more green signals and two signals for hTERC at 3q26 and the 7cen probe. Amplification involving both, the hTERC region at 3q26 and C-MYC region at 8q24, will show three or more red and green signals and two signals for the 7cen probe in blue. Two single colour red (R), green (G), and blue (B) signals will identify the normal chromosomes 3, 8, and 7 (2R2G2B).

	Normal Signal Pattern	Amp(3q26)	Amp (8q24)	Amp (3q26; 8q24)
Expected Signals	2R 2G 2B	3+R 2G 2B	2R 3+G 2B	3+R 3+G 2B

References: Soder AI et al, 1997, Oncogene, 14; 1013-1021
Heselmeyer-Haddad K et al, 2005, Am J Pathol, 166; 1229-1238
Hopman A et al, 2006, J of Pathol, 210; 412-419

AM-KBI-10704_R1.0.doc


Application Manual

KBI-10704
ON CC Hterc (3q26) / C-MYC (8q24) / SE 7 TC

IVD


for EU only

CE




KREATECH Diagnostics
Vlierweg 20
1032 LG Amsterdam
The Netherlands

2°C 8°C
long term
storage




Published Dec 2007 www.poseidondiagnosics.com



3

RH17919
3q26.2 hTERC
RH10606

370 KB



8

RH77966
C-MYC
RH13388
8q24.1

570 KB

Not to scale