ZytoLight® SPEC FHIT/CEN 3 Dual Color Probe

RUO

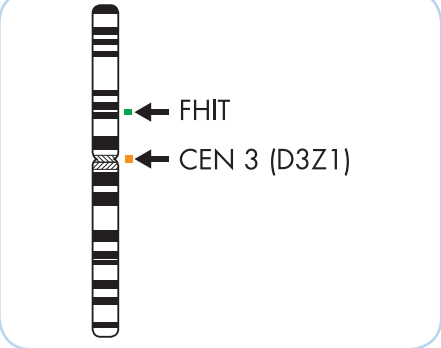
Background

The ZytoLight® SPEC FHIT/CEN 3 Dual Color Probe (PL21) is intended to be used for the qualitative detection of deletions involving the human FHIT gene as well as the detection of chromosome 3 alpha-satellites in formalin-fixed, paraffin-embedded specimens by fluorescence *in situ* hybridization (FISH). The probe is intended to be used in combination with the ZytoLight® FISH-Tissue Implementation Kit (Prod. No. Z-2028-5/-20).

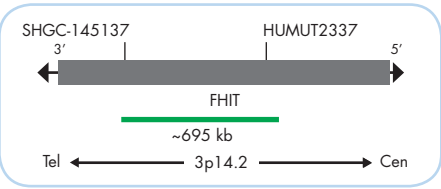
Probe Description

The ZytoLight® SPEC FHIT/CEN 3 Dual Color Probe is composed of:

- ZyGreen (excitation 503 nm/emission 528 nm) labeled polynucleotides (~10 ng/µl), which target sequences mapping in 3p14.2** (chr3:60,035,946-60,732,795) harboring the FHIT gene region.
- ZyOrange (excitation 547 nm/emission 572 nm) labeled polynucleotides (~1.5 ng/µl), which target sequences mapping in 3p11.1-q11.1 specific for the alpha satellite centromeric region D3Z1 of chromosome 3.
- Formamide based hybridization buffer



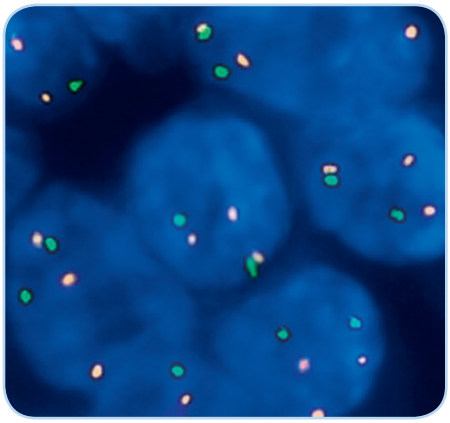
Ideogram of chromosome 3 indicating the hybridization locations.



SPEC FHIT Probe map (not to scale).

Results

In a normal interphase nucleus, two orange and two green signals are expected. In a cell with deletion of the FHIT gene locus, a reduced number of green signals will be observed. Deletions affecting only parts of introns 4 and/or 5 of the FHIT gene might result in a normal signal pattern with green signals of reduced size.



SPEC FHIT/CEN 3 Dual Color Probe hybridized to interphase cells each showing three orange and two green signals.

Prod. No.	Product	Label	Tests* (Volume)
Z-2062-200	ZytoLight SPEC FHIT/CEN 3 Dual Color Probe RUO	●/●	20 (200 µl)

** Using 10 µl probe solution per test. **According to Human Genome Assembly GRCh37/hg19*

RUO *For Research Use Only. Not for use in diagnostic procedures.*