

ZytoDot® 2C SPEC ERG Break Apart Probe

RUO

Background

The ZytoDot® 2C SPEC ERG Break Apart Probe (PD38) is intended to be used for the qualitative detection of translocations involving the human ERG gene at 21q22.2 in formalin-fixed, paraffin-embedded specimens by chromogenic *in situ* hybridization (CISH). The probe is intended to be used in combination with the ZytoDot® 2C CISH Implementation Kit (Prod. No. C-3044-10/-40).

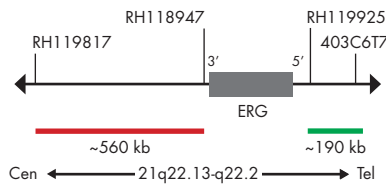
Probe Description

The ZytoDot® 2C SPEC ERG Break Apart Probe is composed of:

- Digoxigenin-labeled polynucleotides (~0.50 ng/μl), which target sequences mapping in 21q22.2** (chr21:40,078,039-40,269,979) distal to the ERG breakpoint region.
- Dinitrophenyl-labeled polynucleotides (~0.75 ng/μl), which target sequences mapping in 21q22.13- 21q22.2** (chr21:39,171,790-39,733,849) proximal to the ERG breakpoint region.
- Formamide based hybridization buffer



Ideogram of chromosome 21 indicating the hybridization locations.



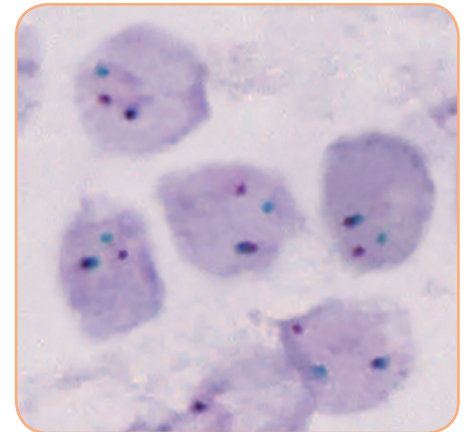
SPEC ERG Probe map (not to scale).

Results

In an interphase nucleus of a normal cell lacking an aberration involving the 21q22.13-q22.2 band, using the ZytoDot® 2C CISH Implementation Kit, two red/green fusion signals are expected representing the two normal (non-rearranged) 21q22.13-q22.2 loci.

A 21q22.13-q22.2 locus affected by a 21q22.2 deletion resulting in the TMPRSS2-ERG fusion is indicated by the loss of one green signal.

A signal pattern consisting of one red/green fusion signal, a separate green, and a separate red signal indicates an ERG translocation without involvement of TMPRSS2 (e.g. SLC45A3-ERG).



Example of an aberrant signal pattern: Prostate cancer tissue section with translocation affecting the 21q22.13-q22.2 locus as indicated by one non-rearranged red/green fusion signal, one red signal, and one separate green signal.

Prod. No.	Product
C-3058-400	ZytoDot 2C SPEC ERG Break Apart Probe RUO

Label	Tests* (Volume)
DIG/DNP	40 (400 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.