ZytoDot® 2C SPEC CCND1 Break Apart Probe

RUO

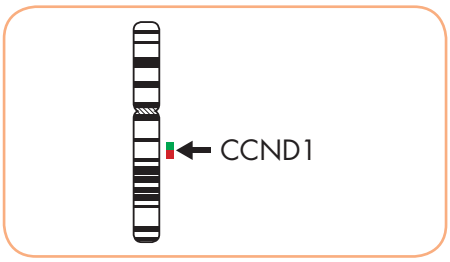
Background

The ZytoDot® 2C SPEC CCND1 Break Apart Probe (PD55) is intended to be used for the qualitative detection of translocations involving the human CCND1 gene at 11q13.3 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).

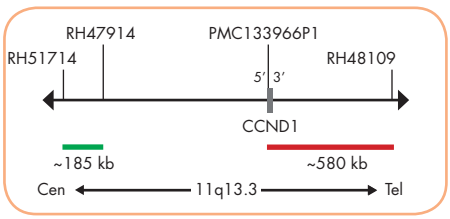
Probe Description

The ZytoDot® 2C SPEC CCND1 Break Apart Probe is composed of:

- Digoxigenin-labeled polynucleotides (~0.50 ng/µl), which target sequences mapping in 11q13.3** (chr11:68,522,105-68,705,283) proximal to the CCND1 breakpoint region.
- Dinitrophenyl-labeled polynucleotides (~0.75 ng/µl), which target sequences mapping in 11q13.3** (chr11:69,453,301-70,031,240) distal to the CCND1 breakpoint region.
- Formamide based hybridization buffer



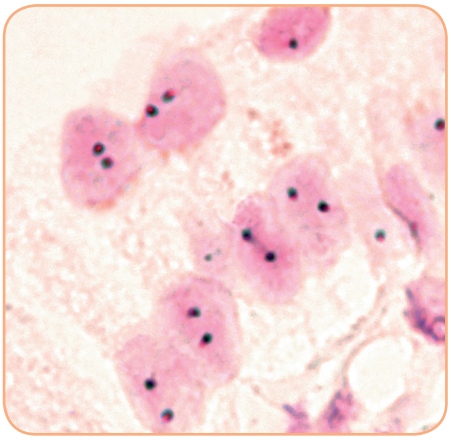
Ideogram of chromosome 11 indicating the hybridization locations.



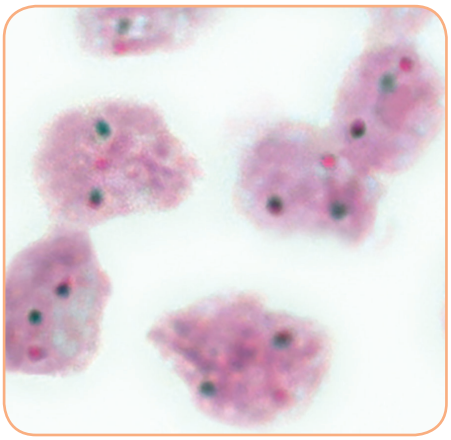
SPEC CCND1 Probe map (not to scale).

Results

In an interphase nucleus of a normal cell lacking a translocation involving the 11q13.3 band, using the ZytoDot® 2C CISH Implementation Kit, two red/green fusion signals are expected representing two normal (non-rearranged) 11q13.3 loci. A signal pattern consisting of one red/green fusion signal, one red signal, and a separate green signal indicates one normal 11q13.3 locus and one 11q13.3 locus affected by a translocation.



SPEC CCND1 Break Apart Probe hybridized to normal interphase cells as indicated by two red/green fusion signals per nucleus.



Example of an aberrant signal pattern: Mantle cell lymphoma tissue section with translocation affecting the 11q13.3 locus as indicated by one non-rearranged red/green fusion signal, one red signal, and one separate green signal.

Prod. No.	Product	Label	Tests* (Volume)
C-3075-100	ZytoDot 2C SPEC CCND1 Break Apart Probe RUO	DIG/DNP	10 (100 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.*