

## ZytoDot® 2C SPEC CDKN2A/CEN 9 Probe



### Background

The ZytoDot® 2C SPEC CDKN2A/CEN 9 Probe is designed for the detection of CDKN2A deletions frequently observed in most tumor cell lines as well as in primary human malignancies.

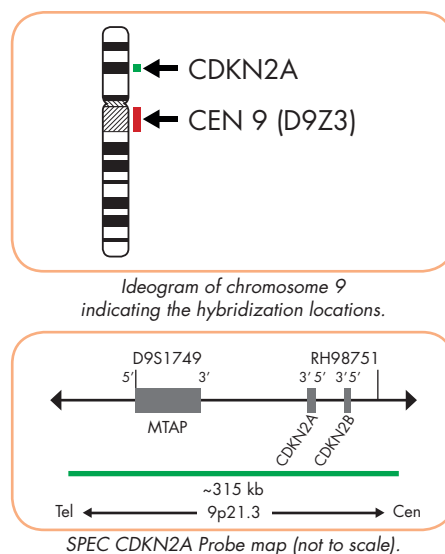
The CDKN2A gene, often referred to as p16 or INK4a/ARF, is located in the chromosomal region 9p21.3. Using alternative first exons and an alternative reading frame, the gene encodes for two distinct tumor suppressor proteins p16INK4a and p14ARF, both involved in cell cycle regulation. CDKN2A has been identified as a major susceptibility gene for melanoma. The tumor suppressor gene CDKN2A is inactivated by homozygous deletions with high frequency in a variety of human primary tumors e.g. bladder and renal cell carcinoma, prostate and ovarian adenocarcinoma, non-small cell lung cancer, sarcoma, glioma, mesothelioma, and melanoma. Furthermore, deletion of the CDKN2A gene is found in up to 80% of T-cell acute lymphoblastic leukemia cases and is associated with poor prognosis and relapse of the disease.

### References

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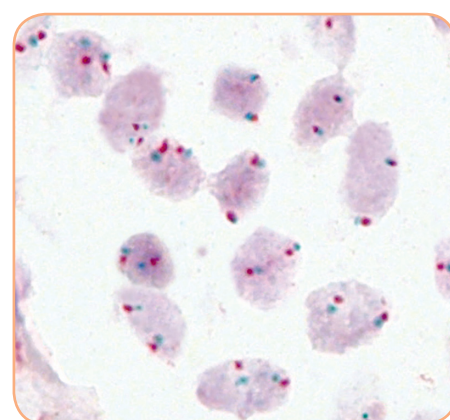
### Probe Description

The ZytoDot® 2C SPEC CDKN2A/CEN 9 Probe is a mixture of a Digoxigenin-labeled probe specific for the CDKN2A gene at 9p21.3 and a Dinitrophenyl-labeled CEN 9 probe specific for the classical satellite III region of chromosome 9 (D9Z3) at 9q12.



### Results

In a normal interphase nucleus, using the ZytoDot® 2C CISH Implementation Kit two green (CDKN2A) and two red (CEN 9) signals are expected. In a cell with deletion of the CDKN2A gene locus, a reduced number of green signals will be observed. Deletions affecting only parts of the CDKN2A gene might result in a normal signal pattern with green signals of reduced size.



SPEC CDKN2A/CEN 9 Probe hybridized to normal interphase cells as indicated by two red and two green signals per nucleus.

| Prod. No.                                                                                                                                                                                                                                                                                                                                                        | Product                                   | Label           | Tests* (Volume) |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|-----------------|-----------------|
| C-3067-400                                                                                                                                                                                                                                                                                                                                                       | ZytoDot 2C SPEC CDKN2A/CEN 9 Probe CE IVD | Digoxigenin/DNP | 40 (400 µl)     |
| <b>Related Products</b>                                                                                                                                                                                                                                                                                                                                          |                                           |                 |                 |
| C-3044-40                                                                                                                                                                                                                                                                                                                                                        | ZytoDot 2C CISH Implementation Kit CE IVD |                 | 40              |
| Incl. Heat Pretreatment Solution EDTA, 500 ml; Pepsin Solution, 4ml; Wash Buffer SSC, 500 ml; 20x Wash Buffer TBS, 2x 50 ml; Anti-DIG/DNP-Mix, 4 ml; HRP/AP-Polymer-Mix, 4 ml; AP-Red Solution A, 0.4 ml; AP-Red Solution B, 15 ml; HRP-Green Solution A, 0.8 ml; HRP-Green Solution B, 15 ml; Nuclear Blue Solution, 20 ml; Mounting Solution (alcoholic), 4 ml |                                           |                 |                 |

\* Using 10 µl probe solution per test. CE IVD only available in certain countries. All other countries research use only! Please contact your local dealer for more information.