

ZytoLight® SPEC ATM/CEN 12 Dual Color Probe



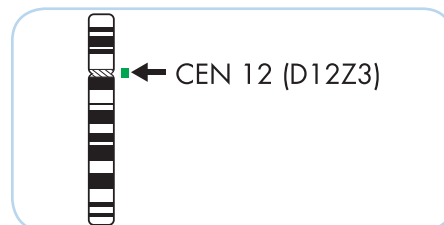
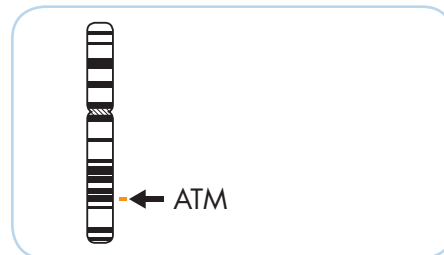
Background

The ZytoLight® SPEC ATM/CEN 12 Dual Color Probe (PL250) is intended to be used for the qualitative detection of deletions involving the human ATM gene as well as the detection of chromosome 12 alpha satellites in cytologic specimens by fluorescence *in situ* hybridization (FISH). The probe is intended to be used in combination with the ZytoLight® FISH-Cytology Implementation Kit (Prod. No. Z-2099-20). The product is intended for professional use only. All tests using the product should be performed in a certified, licensed anatomic pathology laboratory under the supervision of a pathologist/human geneticist by qualified personnel. The probe is intended to be used as an aid to the differential diagnosis of various cancers and therapeutic measures should not be initiated based on the test result alone.

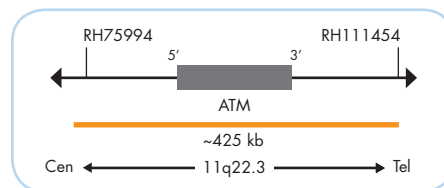
Probe Description

The ZytoLight® SPEC ATM/CEN 12 Dual Color Probe is composed of:

- ZyOrange (excitation 547 nm/emission 572 nm) labeled polynucleotides (~4.5 ng/μl), which target sequences mapping in 11q22.3** (chr11:107,957,618-108,380,921) harboring the ATM gene region.
- ZyGreen (excitation 503 nm/emission 528 nm) labeled polynucleotides (~4.5 ng/μl), which target sequences mapping in 12p11.1-q11 specific for the alpha satellite centromeric region D12Z3 of chromosome 12.
- Formamide based hybridization buffer



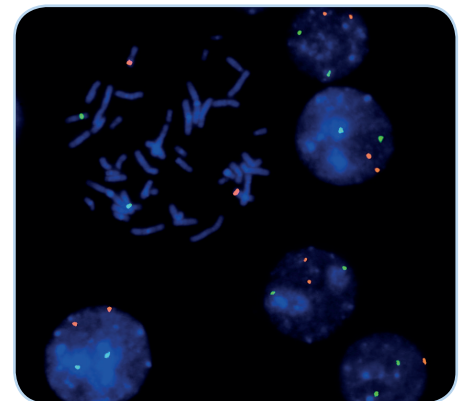
Ideograms of chromosomes 11 (above) and 12 (below) indicating the hybridization locations.



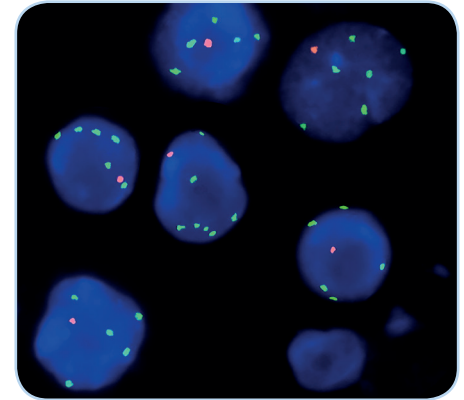
SPEC ATM Probe map (not to scale).

Results

In a normal interphase nucleus, two orange and two green signals are expected. In a cell with deletion of the ATM gene locus, one or no copy of the orange signal will be observed. In a cell with trisomy or polysomy 12, three or more copies of the green signal will be observed, respectively.



SPEC ATM/CEN 12 Dual Color Probe hybridized to normal interphase cells as indicated by two orange and two green signals in each nucleus and to metaphase chromosomes of a normal cell.



Example of an aberrant signal pattern: CLL with deletion of the ATM gene and amplification affecting the centromeric region of chromosome 12 as indicated by one orange signal and five or more green signals in each nucleus.

Prod. No.	Product	Label	Tests* (Volume)
Z-2296-50	ZytoLight SPEC ATM/CEN 12 Dual Color Probe	●/●	5 (50 μl)
Related Products			
Z-2099-20	ZytoLight FISH-Cytology Implementation Kit Incl. Cytology Pepsin Solution, 4 ml; 20x Wash Buffer TBS, 50 ml; 10x MgCl ₂ , 50 ml; 10x PBS, 50 ml; Cytology Stringency Wash Buffer SSC, 500 ml; Cytology Wash Buffer SSC, 500 ml; DAPI/DuraTect-Solution, 0.8 ml		20

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

**According to Human Genome Assembly GRCh37/hg19