

ZytoLight® SPEC GATA2/MECOM Dual Color Dual Fusion Probe



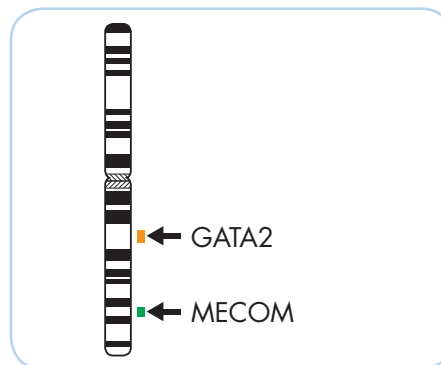
Background

The ZytoLight® SPEC GATA2/MECOM Dual Color Dual Fusion Probe (PL242) is intended to be used for the qualitative detection of the translocation t(3;3) (q21.3;q26.2) as well as the inversion inv(3)(q21.3q26.2) involving the human GATA2 and MECOM genes 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.

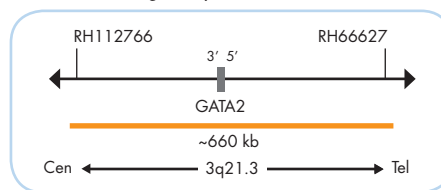
Probe Description

The ZytoLight® SPEC GATA2/MECOM Dual Color Dual Fusion Probe is composed of:

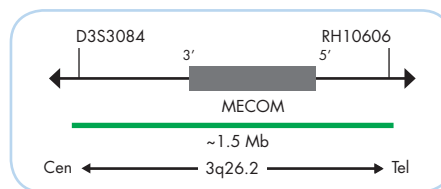
- ZyOrange (excitation 547 nm/emission 572 nm) labeled polynucleotides (~6 ng/μl), which target sequences mapping in 3q21.3** (chr3:127,902,316-128,564,215) harboring the GATA2 gene region.
- ZyGreen (excitation 503 nm/emission 528 nm) labeled polynucleotides (~12 ng/μl), which target sequences mapping in 3q26.2** (chr3:168,249,484-169,743,447) harboring the MECOM gene region.
- Formamid based hybridization buffer



Ideogram of chromosome 3 indicating the hybridization locations.



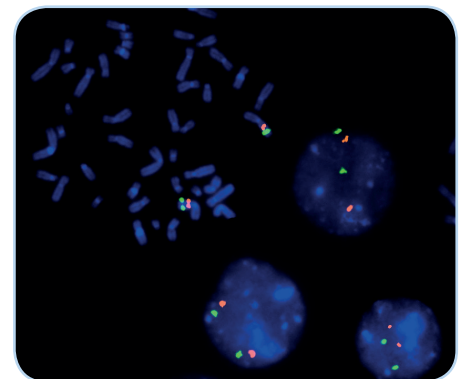
SPEX GATA2 Probe map (not to scale).



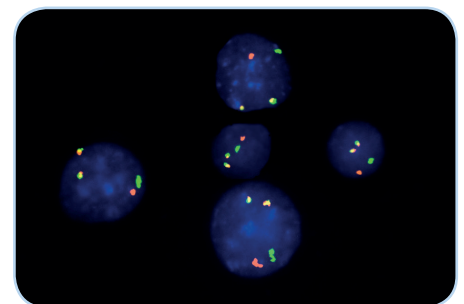
SPEX MECOM Probe map (not to scale).

Results

In a normal interphase nucleus, two green and two orange signals are expected. An aberration involving the chromosomal regions of GATA2 and MECOM generates a fusion signal on each of the chromosomes involved in case of a t(3;3) or two fusion signals on the involved chromosome in case of an inv(3). The chromosomal regions that are not translocated are indicated by the single green and orange signal, respectively. Other relevant signal patterns may also be observed as a result of ins(3;3) or 3q26.2 rearrangements without the involvement of the GATA2 locus.



SPEC GATA2/MECOM Dual Color Dual Fusion Probe hybridized to normal interphase cells as indicated by two orange and two green signals and to metaphase chromosomes of a normal cell.



Example of an aberrant signal pattern: Bone marrow smear with rearrangement affecting the GATA2/MECOM loci as indicated by one separate orange signal, one separate green signal, and two orange/green fusion signals.

Prod. No.	Product	Label	Tests* (Volume)
Z-2287-50	ZytoLight SPEC GATA2/MECOM Dual Color Dual Fusion Probe CE IVD	●/●	5 (50 μl)
Related Products			
Z-2099-20	ZytoLight FISH-Cytology Implementation Kit CE IVD 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. IVD 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