



ampli set MLL-AF4^{CE IVD}

45 tests

cat 1405

detection of translocation t(4;11) MLL-AF4

Molecular studies have shown that the chromosomal breakpoints of t(4;11)(q21;q23) translocation of acute lymphoblast leukemia (ALL) involves the MLL (ALL-1, Hrx) gene on chromosome 11 and the AF4 (FEL) gene on chromosome 4. The MLL gene breakage lead to fusion gene involving most frequently exons 9 and 10 in pediatric and adult ALL, and exon 11 in infant ALL. The most frequent fusion point in AF4 gene is exon 4; in rare cases exons 5, 6 and 7 are fused to the MLL gene.

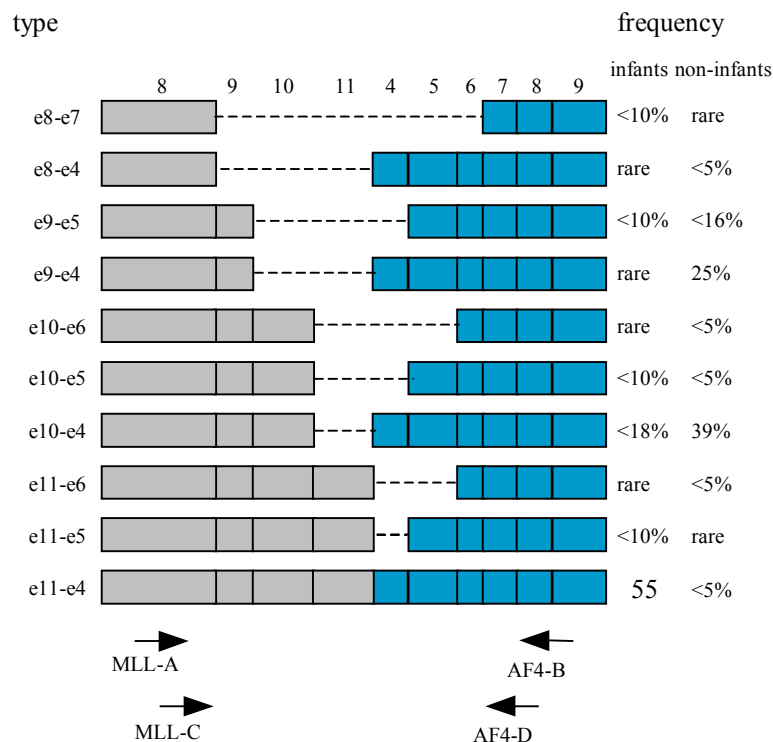
MLL-AF4- positive leukaemia are observed in 50-70% of infant ALL cases and in 5% of adult and pediatric ALL cases. MLL-AF4 has been identified as an adverse prognostic factor in infant leukemia. Also, it has been associated with a bad prognosis in adults. In paediatric cases, there is some suggestion that different age groups have different prognoses. This kit enables the detection of all known MLL-AF4 fusion transcripts by reverse transcription-polymerase chain reaction (RT-PCR) using primer sets designed at opposite sides of the breakpoint fusion regions (MLL exon 8 and AF4 exon 7). It can be use as a rapid method for detecting this chromosomal abnormality and following the patient's response to therapy.

Principle of method: A) extraction of genomic DNA; B) reverse transcription; C) amplification; C) detection on agarose gel

Applicability: on extracted and purified RNA

ANALYSIS OF RESULTS

MLL-AF4 fusion transcripts



The size of the PCR products could be different due to variable breakpoint positions in the genes

REFERENCES

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