

Leukaemia Section

Short Communication

t(11;17)(q23;p13)

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Published in Atlas Database: June 2000

Online updated version : <http://AtlasGeneticsOncology.org/Anomalies/t1117ID1137.html>

DOI: 10.4267/2042/37645

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Identity

Note

The translocation may be hidden, and can present as a del(11)(q23).

Clinics and pathology

Disease

Acute non lymphocytic leukemia (ANLL), acute lymphocytic leukemia (ALL)

Clinics

Poorly known: a few cases, but without ascertainment of GAS7 involvement (a gene in 17p13); they are cases of MDS in transformation, ANLL, bi-phenotypic leukemia, and ALL; one the other hand, one case of t(11;17) with MLL and GAS7 involvements has been described: a 13-year-old boy, with a M4 treatment-related ANLL and a karyotype with an apparent del(11)(q23) (a cryptic t(11;17)(q23;p13)); four months later the patient died.

Genes involved and proteins

MLL

Location

11q23

DNA/RNA

21 exons, spanning over 100 kb; 13-15 kb mRNA.

Protein

431 kDa; contains two DNA binding motifs (a AT hook, and Zinc fingers), a DNA methyl transferase motif, a bromodomain; transcriptional regulatory factor; nuclear localisation.

GAS7

Location

17p13

DNA/RNA

Genomic sequence 167 kb; 14 exons.

Protein

Expression in quiescent/terminally differentiated cells, especially in the brain.

Result of the chromosomal anomaly

Hybrid gene

Description

5' MLL-3' GAS7; breakpoint in MLL intron 8, in MLL bcr; GAS7 breakpoint upstream of exon 1; fusion of MLL exon 7 or exon 8 to GAS7 exon 2.

References

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This article should be referenced as such:

Huret JL. t(11;17)(q23;p13). *Atlas Genet Cytogenet Oncol Haematol*. 2000; 4(3):127.