

# Leukaemia Section

## Short Communication

### t(10;11)(p11.2;q23)

Jean-Loup Huret

Genetics, Dept Medical Information, University of Poitiers, CHU Poitiers Hospital, F-86021 Poitiers, France (JLH)

Published in Atlas Database: April 2000

Online updated version : <http://AtlasGeneticsOncology.org/Anomalies/t1011ID1178.html>

DOI: 10.4267/2042/37621

This work is licensed under a Creative Commons Attribution-Noncommercial-No Derivative Works 2.0 France Licence.  
© 2000 Atlas of Genetics and Cytogenetics in Oncology and Haematology

#### Identity

**Note:** Must not be confused with the t(10;11)(p12;q23) involving AF10 in 10p12 and MLL, or the t(10;11)(p13;q14-21), also involving AF10, but with CALM on chromosome 11.

#### Clinics and pathology

##### Disease

Acute non lymphoblastic leukemia (ANLL).

##### Phenotype/cell stem origin

M4

##### Epidemiology

Poorly known: only 1 case.

##### Clinics

A boy aged 8 months; achieved complete remission, had bone marrow transplantation; alive 5 years+.

#### Genes involved and proteins

##### ABI-1

###### Location

10p11.2

###### DNA/RNA

Different splicings.

###### Protein

Possesses a SH3 domain; cell growth inhibitor.

##### MLL

###### Location

11q23

##### DNA/RNA

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.

#### Result of the chromosomal anomaly

##### Hybrid gene

###### Description

5' MLL - 3' ABI1; fusion at MLL exon 7.

##### Fusion protein

###### Description

1727 amino acids (1406 from MLL and 321 from ABI-1); NH2- AT-hook, DNA methyltransferase, and transcriptional repression domain of MLL, fused to the homeodomain homologous region and the SH3 domain of ABI-1 in COOH.

#### References

Taki T, Shibuya N, Taniwaki M, Hanada R, Morishita K, Bessho F, Yanagisawa M, Hayashi Y. ABI-1, a human homolog to mouse Abl-interactor 1, fuses the MLL gene in acute myeloid leukemia with t(10;11)(p11.2;q23). *Blood*. 1998 Aug 15;92(4):1125-30

*This article should be referenced as such:*

Huret JL. t(10;11)(p11.2;q23). *Atlas Genet Cytogenet Oncol Haematol*. 2000; 4(2):75.