

Leukaemia Section

Short Communication

t(1;21)(q21;q22)

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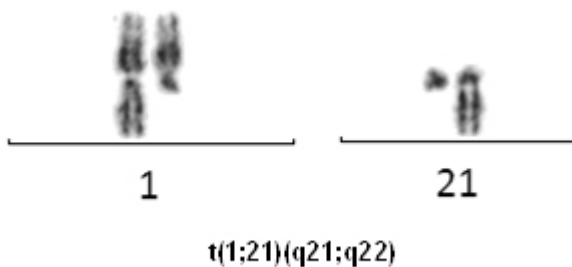
Published in Atlas Database: September 2007

Online updated version: <http://AtlasGeneticsOncology.org/Anomalies/t0121q21q22ID1446.html>

DOI: 10.4267/2042/38584

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Identity



t(1;21)(q21;q22) G- banding - Courtesy Melanie Zenger and Claudia Haferlach.

Clinics and pathology

Disease

Acute myeloid leukaemia (AML).

Epidemiology

Only one case to date, a 1 year old boy with M1 AML.

Prognosis

No data.

Genes involved and Proteins

ZNF687

Location: 1q21

Protein

10 zinc fingers; krueppel C2H2-type zinc-finger protein; transcription factor.

RUNX1

Location: 21q22

Protein

Transcription factor (activator) for various hematopoietic-specific genes, which expression is limited to hematopoietic stem cells, and endothelial cells and mesenchymal cells in the embryo; core binding factor family member which forms heterodimers with CBFβ; binds to the core site 5' PyGPyGGTPy 3' of promoters and enhancers.

Results of the chromosomal anomaly

Hybrid gene

Description

5' RUNX1- 3' ZNF687

References

Nguyen TT, Ma LN, Slovak ML, Bangs CD, Cherry AM, Arber DA. Identification of novel Runx1 (AML1) translocation partner genes SH3D19, YTHDF2, and ZNF687 in acute myeloid leukemia. *Genes Chromosomes Cancer* 2006;45:918-932.

This article should be referenced as such:

Huret JL. t(1;21)(q21;q22). *Atlas Genet Cytogenet Oncol Haematol.*2008;12(5):401