

OPEN ACCESS JOURNAL AT INIST-CNRS

Leukaemia Section

Short Communication

t(1;21)(q12;q22)

Yongquan Xue, Jean-Loup Huret

Jiangsu Institute of Hematology, the First Affiliated Hospital of Soochow University, Suzhou, PR China (YX), Genetics, Dept Medical Information, University of Poitiers, CHU Poitiers Hospital, F-86021 Poitiers, France (JL.H)

Published in Atlas Database: June 2009

Online updated version : http://AtlasGeneticsOncology.org/Anomalies/t0121q12q22ID2135.html DOI: 10.4267/2042/44763

This work is licensed under a Creative Commons Attribution-Noncommercial-No Derivative Works 2.0 France Licence. © 2010 Atlas of Genetics and Cytogenetics in Oncology and Haematology

Clinics and pathology

Disease

Acute monocytic leukemia (AML-M5).

Epidemiology

Only one case reported in the literature till now, a 53-year-old female patient (Dai et al., 2007).

Prognosis

The patient was still in remission 26 months after diagnosis.

Genes involved and proteins

Note

The gene partner in chromosome 1q12 is unknown.

RUNX1

Location

21q22

DNA/RNA

Transcription from telomere to centromere.

Protein

Contains the RUNT binding domain at 5' portion and the transactivation domain at 3' portion. Forms heterodimers; widely expressed; nuclear localization; a transcription factor and critical regulator of hematopoietic-cell development.

References

Dai H, Xue Y, Pan J, Wu Y, Wang Y, Shen J, Zhang J. Two novel translocations disrupt the RUNX1 gene in acute myeloid leukemia. Cancer Genet Cytogenet. 2007 Sep;177(2):120-4

This article should be referenced as such:

Xue Y, Huret JL.. t(1;21)(q12;q22). Atlas Genet Cytogenet Oncol Haematol. 2010; 14(5):493.