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Leukaemia Section

Short Communication

t(11;19)(q13;p13) FSTL3/CCND1

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Abstract

Review on t(11;19)(q13;p13) FSTL3/CCND1, with data on clinics, and the genes involved.

Keywords

t(11;19)(q13;p13); FSTL3; CCND1; chronic lymphocytic leukemia

Clinics and pathology

Disease

B-cell chronic lymphocytic leukemia (B-CLL)

Epidemiology

Only one case to date, a 67 year-old female patient (Rimokh et al., 1993; Hayette et al., 1998).

Prognosis

No data

Cytogenetics

Cytogenetics morphological

Complex karyotype.

Genes involved and proteins

CCND1

Location

11q13.3

Protein

Binds and activates the G1 cyclin dependent kinases; Phosphorylates SMAD3 and inhibits its transcriptional activity and antiproliferative function.

FSTL3

Location

19p13.3

Protein

Binds activin A and with lower affinity several other members of the TGF beta family; interacts with ADAM12, FN1 (fibronectin type 1,), and MLLT10 (Grusch, 2012).

Result of the chromosomal anomaly

Hybrid gene

Description

The breaks occurred at nucleotide 2276 in the 3' untranslated region of the last CCND1 exon, and about 7 kbp upstream of FSTL3.

References

Grusch, M. FSTL3 (follistatin-like 3 (secreted glycoprotein)) Atlas Genet Cytogenet Oncol Haematol. 2013;17(3):151-154.

Hayette S, Gadoux M, et al.. FLRG (follistatin-related gene), a new target of chromosomal rearrangement in malignant blood disorders. Oncogene. 1998 Jun 4;16(22):2949-54.

Rimokh R, Berger F, et al.. Rearrangement and overexpression of the BCL-1/PRAD-1 gene in intermediate lymphocytic lymphomas and in t(11q13)-bearing leukemias. Blood. 1993 Jun 1;81(11):3063-7.

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