Leukaemia Section
Short Communication

$t(11;17)(q23;q25)$

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Identity

$\text{t}(11;17)(q23;q25) \text{ G-banding - Courtesy Jean Luc Lai.}$

Clinics and pathology

Disease

De novo and treatment related acute non lymphocytic leukemia (ANLL), myelodysplastic syndromes (MDS); acute lymphoblastic leukemia (ALL) at times.

Phenotype/cell stem origin

Various subtypes of ANLL may be found, M4 in particular, but also M1, M2, M5.

Epidemiology

At least 24 cases described; often found in children and young adults.

Prognosis

Poor.

Genes involved and proteins

$\text{MLL}$

<table>
<thead>
<tr>
<th>Location</th>
<th>11q23</th>
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</thead>
<tbody>
<tr>
<td><strong>Protein</strong></td>
<td>Contains two DNA binding motifs (a AT hook, and Zinc fingers), a DNA methyl transferase motif, a bromodomain; transcriptional regulatory factor; nuclear localisation.</td>
</tr>
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$\text{MSF}$

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<tr>
<th>Location</th>
<th>17q25</th>
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<tr>
<td><strong>Protein</strong></td>
<td>Protein which belongs to the septin family.</td>
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Result of the chromosomal anomaly

Hybrid gene

Description

5’ MLL - 3’ MSF; fusion at MLL exon 5; the reciprocal MSF-MLL is also transcribed, but out of frame.

Fusion protein

Description

NH2 - AT hook and DNA methyltransferase from MLL fused to most of MSF in COOH.

References


Taki T, Ohnishi H, Shinohara K, Sako M, Bessho F, Yanagisawa M, Hayashi Y. AF17q25, a putative septin family gene, fuses the MLL gene in acute myeloid leukemia with t(11;17)(q23;q25). Cancer Res. 1999 Sep 1;59(17):4261-5

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