

t(9;11)(q34;q23) (AF9q34-MLL)

Identity

Note Not to be confused with the [t\(9;11\)\(q34;q23\)](#), involving [MLL](#) and [FBP17](#)

Clinics and Pathology

Disease De novo AML M5

Epidemiology Only one case to date, a 62 yr old male patient

Clinics The patient presented with multi-organ failure due to leukostasis and infection. WBC was $248 \times 10^9/L$

Prognosis Patient died within a few months after diagnosis

Cytogenetics

Additional anomalies +8 and +13 in 40% of metaphases

Genes involved and Proteins

Gene Name

[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

Gene Name

[AF9q34](#)

Location 9q34, centromeric of FBP17 and [ABL](#)

Dna / Rna 14 exons stretched over an area of about 84 kb, 5192 bp mRNA

Protein 967 amino acids; contains a GAP related domain (GRD), an 'FLR'-motif, a Pleckstrin homology (PH) domain and a calcium/phospho-lipid-binding C2/CALB domain

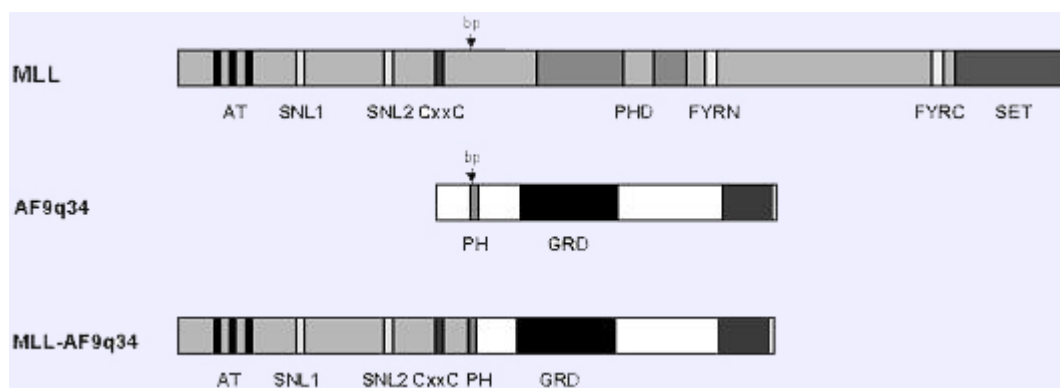
Result of the chromosomal anomaly

Hybrid

gene 5' MLL - 3' AF9q34

Transcript

Fusion Protein



Description MLL/AF9q34 contains the AT-hook, DNA-Methyltransferase, Zinc-Fingers domains of MLL and the entire GAP related domain (GRD) and the C2/CALB domain of AF9q34

External links

Other database [t\(9;11\)\(q34;q23\) \(AF9q34-MLL\)](#) [Mitelman database \(CGAP - NCBI\)](#)

Other database [t\(9;11\)\(q34;q23\) \(AF9q34-MLL\)](#) [CancerChromosomes \(NCBI\)](#)

To be noted

Additional cases are needed to delineate the epidemiology of this rare entity: **you are welcome to submit a paper to our new [Case Report section](#).**

Bibliography

Identification of a novel RAS GTPase-activating protein (RASGAP) gene at 9q34 as an MLL fusion partner in a patient with de novo acute myeloid leukemia.

von Bergh A, Wijers P, Groot A, van Zelder-Bhola S, Falkenburg J, Kluin P, Schuurin E.

Genes Chromosomes Cancer. 2004 Apr;39(4):324-34.

Medline [14978793](#)

Contributor(s)

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Citation

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