

Gene Section

Short Communication

AF5Q31 (ALL1 fused gene from chromosome 5q31)

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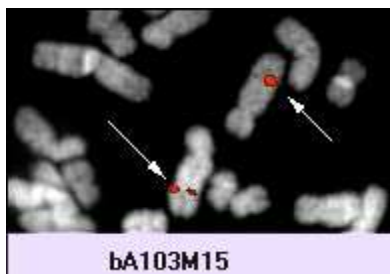
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Identity

Other names: AF5q31 (ALL1 fused gene from chromosome 5q31)

HGNC (Hugo): AFF4

Location: 5q31



AF5q31 (5q31) - Courtesy Mariano Rocchi, Resources for Molecular Cytogenetics.

DNA/RNA

Description

At least 16 exons.

Transcription

In a telomere to centromere direction; 4235 bp mRNA; open reading frame: 3491 bp.

Protein

Description

1163 amino acids; 127 kDa.

Expression

Mostly in fetal tissues (heart, lung, brain, liver); at a low level in adult tissues; therefore, AF5q31 may play a critical role in the fetal development.

Homology

With AF4-related proteins: AF4, the gene involved *int(4;11)(q21;q23)*, LAF4, FMR2.

Implicated in

ins(5;11)(q31;q13q23)acute lymphoblastic leukemia (ALL) --> MLL-AF5q31

Note

Poorly defined: only 2 cases to date, infants with CD19+ ALL; complete remission, relapse and death.

Hybrid/Mutated gene

AF5Q31 and MLL are transcribed in opposite directions, and inverted insertion is required.

References

Taki T, Kano H, Taniwaki M, Sako M, Yanagisawa M, Hayashi Y. AF5q31, a newly identified AF4-related gene, is fused to MLL in infant acute lymphoblastic leukemia with *ins(5;11)(q31;q13q23)*. *Proc Natl Acad Sci U S A*. 1999 Dec 7;96(25):14535-40

Deveney R, Chervinsky DS, Jani-Sait SN, Grossi M, Aplan PD. Insertion of MLL sequences into chromosome band 5q31 results in an MLL-AF5Q31 fusion and is a rare but recurrent abnormality associated with infant leukemia. *Genes Chromosomes Cancer*. 2003 Jul;37(3):326-31

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