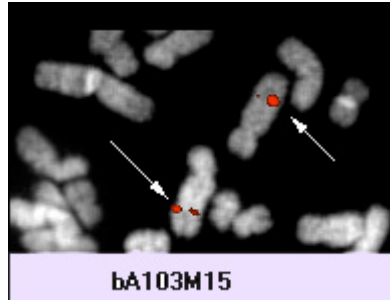


AF5q31 (ALL1 fused gene from chromosome 5q31)

(updated: old version not available)

Identity

Location 5q31



[AF5q31](#) (5q31) - Courtesy Mariano Rocchi, [Resources for Molecular Cytogenetics](#). Laboratories willing to validate the probes are welcome : contact rocchi@biologia.uniba.it

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 in [t\(4;11\)\(q21;q23\)](#), LAF4, FMR2

Implicated in

Entity [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

External links

Nomenclature

[GDB](#) [AF5Q31](#)
[Entrez Gene](#) [AF5Q31](#) [27125](#) ALL1 fused gene from 5q31

Cards

[Atlas](#) [AF5q31ID230](#)
[GeneCards](#) [AF5Q31](#)
[Ensembl](#) [AF5Q31](#)
[CancerGene](#) [AF5q31](#)
[Genatlas](#) [AF5Q31](#)
[GeneLynx](#) [AF5Q31](#)
[eGenome](#) [AF5Q31](#)
[euGene](#) [27125](#)

Genomic and cartography

[GoldenPath](#) [AF5Q31](#) - [5q31](#) [chr5:132244244-132327181](#) - [5q31.1](#) (hg17-May_2004)
[Ensembl](#) [AF5Q31](#) - [5q31.1](#) [CytoView]
[NCBI](#) [Genes Cyto](#) [Gene Seq](#) [Map View - NCBI]
[OMIM](#) [Disease map](#) [OMIM]
[HomoloGene](#) [AF5Q31](#)

Gene and transcription

[Genbank](#) [AF197927](#) [SRS] [AF197927](#) [ENTREZ]
[Genbank](#) [AF213987](#) [SRS] [AF213987](#) [ENTREZ]
[Genbank](#) [BC025700](#) [SRS] [BC025700](#) [ENTREZ]
[Genbank](#) [BC040454](#) [SRS] [BC040454](#) [ENTREZ]
[Genbank](#) [BC063007](#) [SRS] [BC063007](#) [ENTREZ]
[RefSeq](#) [NM_014423](#) [SRS] [NM_014423](#) [ENTREZ]
[RefSeq](#) [NT_086681](#) [SRS] [NT_086681](#) [ENTREZ]
[AceView](#) [AF5Q31](#) AceView - NCBI
[TRASER](#) [AF5Q31](#) Traser - Stanford
[Unigene](#) [Hs.519313](#) [SRS] [Hs.519313](#) [NCBI] [HS519313](#) [spliceNest]

Protein : pattern, domain, 3D structure

Polymorphism : SNP, mutations, diseases

[OMIM](#) [604417](#) [[map](#)]
[GENECLINICS](#) [604417](#)
[SNP](#) [AF5Q31](#) [dbSNP-NCBI]
[SNP](#) [NM_014423](#) [SNP-NCI]
[SNP](#) [AF5Q31](#) [GeneSNPs - Utah] [AF5Q31](#) [SNP - CSHL] [AF5Q31](#) [HGBASE - SRS]

General knowledge

Family Browser	AF5Q31 [UCSC Family Browser]
SOURCE	NM_014423
SMD	Hs.519313
SAGE	Hs.519313
Amigo	function transcription factor activity
Amigo	process transcription from Pol II promoter
PubGene	AF5Q31

Other databases

Probes

Probe	Cancer Cytogenetics (Bari)
-----------------------	--

PubMed

PubMed	3 Pubmed reference(s) in LocusLink
------------------------	--

Bibliography

AF5q31, a newly identified AF4-related gene, is fused to MLL in infant acute lymphoblastic leukemia with ins(5;11)(q31;q13q23).

Taki T, Kano H, Taniwaki M, Sako M, Yanagisawa M, Hayashi Y.
Proc Natl Acad Sci USA 1999; 96: 14535-14540.
Medline [10588740](#)

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.

Deveney R, Chervinsky DS, Jani-Sait SN, Grossi M, Aplan PD.
Genes Chromosomes Cancer. 2003; 37: 326-331.
Medline [12759932](#)

[REVIEW articles](#) *automatic search in PubMed*

[Last year publications](#) *automatic search in PubMed*

[BiblioGene - INIST](#)

Contributor(s)

Written	04-2000	Jean-Loup Huret
Updated	06-2003	Jean-Loup Huret

Citation

This paper should be referenced as such :

Huret JL . AF5q31 (ALL1 fused gene from chromosome 5q31). Atlas Genet

Cytogenet Oncol Haematol. April 2000 .

URL : <http://www.infobiogen.fr/services/chromcancer/Genes/AF5q31ID230.html>

Huret JL . AF5q31 (ALL1 fused gene from chromosome 5q31). Atlas Genet

Cytogenet Oncol Haematol. June 2003 .

URL : <http://www.infobiogen.fr/services/chromcancer/Genes/AF5q31ID230.html>

© *Atlas of Genetics and Cytogenetics in Oncology and Haematology*
