BCL11A (B-cell lymphoma/leukemia 11A)

Jean-Loup Huret

Genetics, Dept Medical Information, UMR 8125 CNRS, University of Poitiers, CHU Poitiers Hospital, F-86021 Poitiers, France (JLH)

Published in Atlas Database: April 2002
Online updated version : http://AtlasGeneticsOncology.org/Genes/BCL11AID391.html
DOI: 10.4267/2042/37867
This work is licensed under a Creative Commons Attribution-Noncommercial-No Derivative Works 2.0 France Licence. © 2002 Atlas of Genetics and Cytogenetics in Oncology and Haematology

Identity
HGNC (Hugo): BCL11A
Location: 2p13-15

DNA/RNA
Description
5 exons, with a CpG island in 5' of the gene.

Transcription
The major transcript is the longest transcript (5941 bp); other transcripts of 3.8 kb and 1.5 kb; alternate splices in exon 4.

Protein
Description
835 amino acids, predicted molecular weight of 91.3 kDa for the longest isoform, called BCL11AXL, with 6 Kruppel C2H2 zinc fingers, a prolin rich domain, and an acidic domain; 773 and 243 amino acids for the BCL11AL and the BCL11AS respectively.

Expression
Expressed in the fetal brain; low level or undetectable expression in most adult tissues, apart from lymph nodes, thymus, and bone marrow.

Function
Contains DNA binding motifs (Zn fingers).

Homology
Evi9 (mouse); human BCL11B (14q32.1).
**Implicated in**

**t(2;14)(p13;q32) in B-cell malignancies**

**Disease**

Chronic lymphocytic leukemia/immunocytoma aggressive disease; possibly also other t(2;14)(p13;q32) in other B-cell diseases (acute lymphocytic leukemia, myeloma, ...) involve the same genes, but probably not Hodgkin disease cases with 2p amplification.

**Cytogenetics**

most often the sole anomaly

**Hybrid/Mutated gene**

head to head translocation of BCL11A with IGH switch sequences on the der(2)

**Oncogenesis**

BCL11A is overexpressed.

---

**References**


*This article should be referenced as such:*