

Gene Section

Short Communication

BCL11A (B-cell lymphoma/leukemia 11A)

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Published in Atlas Database: April 2002

Online updated version : <http://AtlasGeneticsOncology.org/Genes/BCL11AID391.html>

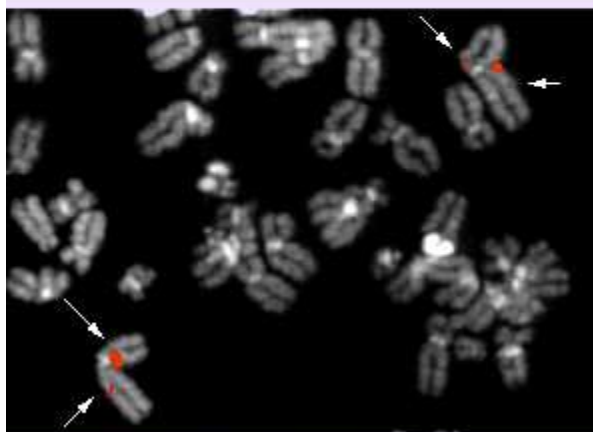
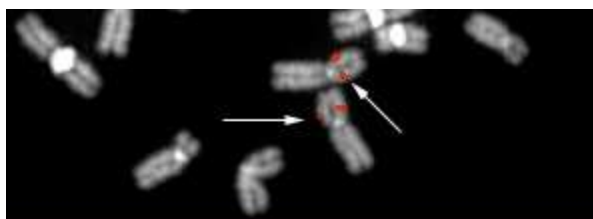
DOI: 10.4267/2042/37867

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Identity

HGNC (Hugo): BCL11A

Location: 2p13-15



bA440P5 (top) and bA158I21 (bottom)

BCL11A (2p15) - Courtesy Mariano Rocchi, Resources for Molecular Cytogenetics.

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

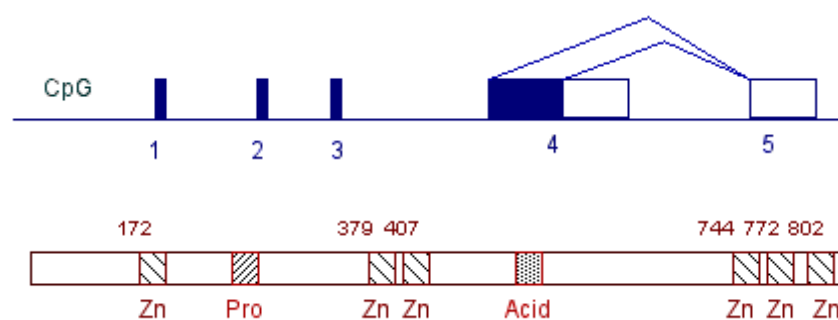
Expressed in the fetal brain; low level or undetectable expression in most adult tissues, apart from lymph nodes, thymus, and bone marrow.

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

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This article should be referenced as such:

Huret JL. BCL11A (B-cell lymphoma/leukemia 11A). *Atlas Genet Cytogenet Oncol Haematol*. 2002; 6(3):196-197.
