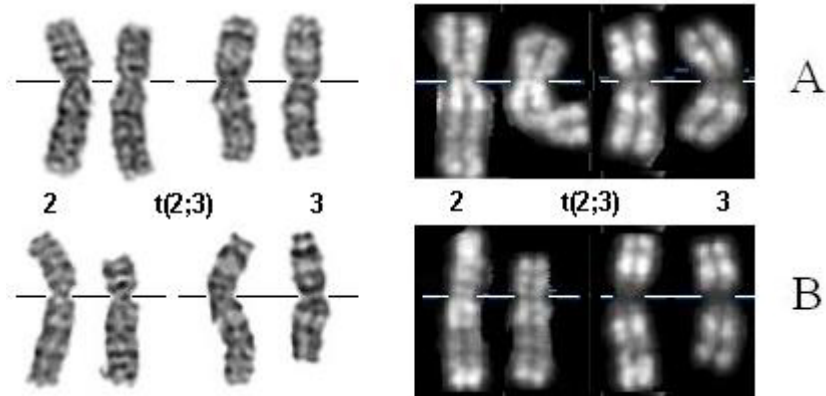


## t(2;3)(p15-23;q26-27)

### Identity

**Note** There are 2 subtypes of the t(2p;3q); in one type the breakpoint on chromosome 2 is assigned to bands 2p21-23, whereas the breakpoint for the other type of breakpoint is localized at 2p15-21.



Partial GTG (Marian Stevens-Kroef, left) and RFA (Anne Hagemeijer, right) banded karyotypes of t(2;3)( p15-23;q26-27) with the distal (A) and proximal (B) breakpoint on chromosome 2.

### Clinics and Pathology

**Disease** In myeloid malignancies, (therapy-related) [acute myeloid leukemias](#) (AML), [myelodysplastic syndromes](#) (MDS) and [chronic myelogenous leukemia](#) in blastic crisis (CML-BC).

**Epidemiology** 50 cases described so far; 4M/3F; age 3-80 years (median 52).

**Cytology** Dysplastic bone marrow, dysmegakaryopoiesis, high platelet counts.

**Prognosis** Poor prognosis: median survival 12 months (range 1-53).

### Cytogenetics

**Note** Heterogeneous breakpoints by cytogenetic and FISH analysis; FISH mapping of 2p breakpoints was very heterogeneous; FISH mapping of the 3q breakpoint was within the EVI1-MDS region (between RP11-694D5 (centromeric) and RP11-362K14 (telomeric) in the great majority of cases.

**Additional anomalies** [-7](#), [del\(7q\)](#), [del\(5q\)](#). The t(2p;3q) is also seen in [t\(9;22\)\(q34;q11\) CML](#).

### Genes involved and Proteins

**Gene Name** [EVI1](#)

**Location** 3q26

**Note** There is a direct correlation between mapping of the 3q breakpoint in the above given EVI1-MDS region and EVI1 ectopic expression by RT-PCR. Rare case with 3q break outside this interval failed to show ectopic expression of EVI1.

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## Citation

*This paper should be referenced as such :*

**Stevens-Kroef M** . t(2;3)(p15-23;q26-27). Atlas Genet Cytogenet Oncol Haematol. May 2004 .

URL :

<http://www.infobiogen.fr/services/chromcancer/Anomalies/t0203p15q26ID1091.html>

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