

## t(5;10)(q33;q21)

### Clinics and Pathology

<b>Disease</b>	myeloid lineage
Phenotype / cell stem origin	atypical chronic myeloid leukemia (CML), Philadelphia negative, bcr-abl negative with eosinophilia
Epidemiology	only two cases available
Clinics	massive splenomegaly in one case; some clinical features of accelerated CML
Cytology	peripheral blood leukoerythroblastosis; bone marrow granulocytic hyperplasia, bone marrow fibrosis (grade III-IV reticulin), dry tap
Pathology	extramedullary hemopoiesis in the spleen
Treatment	control of disease by hydroxyurea in both cases

### Cytogenetics

Cytogenetics	cytogenetic result: add(5q), del(10q)
Morphological	
Probes	cosB for PDGFBR (5q33); PAC29F6 for H4/D10S170 (10q21)

### Genes involved and Proteins

<b>Gene Name</b>	PDGFRB (Platelet Derived Growth Factor Receptor Beta)
Location	5q33
Protein	transmembrane and tyrosine kinase domains
<b>Gene Name</b>	<a href="#">H4(D10S170)</a>
Location	10q21
Protein	carboxyterminal putative SH3 binding site; cytoskeletal protein?

### Result of the chromosomal anomaly

<b>Hybrid gene</b>	H4-PDGFRB chimeric RNA constantly present
Transcript	

### External links

Other database	<a href="#">t(5;10)(q33;q21)</a>	<a href="#">Mitelman database (CGAP - NCBI)</a>
Other database	<a href="#">t(5;10)(q33;q21)</a>	<a href="#">CancerChromosomes (NCBI)</a>

### To be noted

Additional cases are needed to delineate the epidemiology of this rare entity:  
**you are welcome to submit a paper to our new [Case Report](#) section.**

### Bibliography

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Siena S et al.  
Haematologica 1999; 84: 369.

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Cancer Res 2000; 60: 3592.

### **Contributor(s)**

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### **Citation**

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URL : <http://www.infobiogen.fr/services/chromcancer/Anomalies/t510ID1166.html>

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