

Table S1 ^{Q15} Global incidence of TEL/AML1 fusion in B-ALL

Reference no Place	Technology used	Incidence of TEL AML 1 fusion positivity and other abnormalities	Additional findings in TELAML1 negative cases	Age
5. USA	FISH	14/45 (31%) 3 had an additional der 21 [t(12;21)], 4 del12p 2 extra copy of chromosome 21 -Range of positivity -20-80%		
6. Spain	FISH	Positive in 17% Double TEL/AML1 fusion, lack of TEL and extra AML1-(9.5%)		
7. Tunisia	FISH	Positive in 16/41 (28%) 2 cases also showed loss of TEL gene and 3 cases—an extra signal of AML1	7 TEL AML1 negative—extra copies of AML1 gene. 1 case of 7-t(3;12)	
8. Minnesota, United States	FISH -data of 8 years	8 patients. 2 TEL-AML1 fusion signals		7 males; mean age 46 months
9. Egypt	FISH	24 TEL AML1 positive patients had single fusion signals		18 males; mean age 52 months
10. Pakistan, International project in developing countries	RT-PCR	80 patients Positive in 37.5%		
11. Pakistan	RT-PCR	181 children Positive in 9/121-7.4%		1-10 years M:F ratio 1.5:1
12. Pakistan	RT-PCR	Positive in 17/167 (10.2%)		
13. Korea	G-banding analysis and FISH	Positive in 13/120 (10.8%)		9-14 years, males
14. Korea	FISH	Positive in 9/64 (14.1%) -2 cases had 2 fusions. -1 patient had TEL/AML1 translocation & MLL deletion, & p16 hemizygous deletion. 4 patients had TEL AML 1 fusion with AML1 deletion		
15. China	Review article	Positive in 21/123 (17.1%) In addition, also noted unrearranged TEL deletion-61.9% AML1 gain -23.8% unrearranged TEL deletion combined with AML1 -9.5%		Male predominance

(Continued)

Table S1 (Continued)

Reference no Place	Technology used	Incidence of TEL AML 1 fusion positivity and other abnormalities	Additional findings in TELAML1 negative cases	Age
16. Turkey	FISH	Positive in 8.5% AML1 amplification 6.0% -tetrasomy/trisomy 21-3.0%, TEL deletion 1.8%, TEL deletion with AML1 amplification 1.21%, TEL amplification with AML1 amplification 1.21%, polyploidy 0.6%, AML1 deletion-0.6%, diminished TEL signal 0.6%		
17. Brazil	Cytogenetics and FISH	Positive in 11/58 (18.9%) children Deletion of native TEL seen in 27.3% 3 cases presented two fusion signals, indicating possible duplication of the der(21).	Del of TEL gene-4.2% of TEL AML1 negative cases	Mean age and WBC counts- 4.8 years 44,270 × 10 ⁶ /L. 33/58 patients were females.
18. Israel Jerusalem	FISH	Positive in 6/15 children (40%) 3 had double fusion. Additional copies of AML1 gene also noted		

Abbreviations: B-ALL, B-acute lymphoblastic leukemia; FISH, fluorescence in situ hybridization; RT-PCR, reverse transcription polymerase chain reaction.

Table S2 Data showing distribution of *TEL/AML1* fusion in India

Reference no and place	Technology	No of samples studied & incidence of <i>TEL AML 1</i> fusion and other findings
North India		
19. Delhi AIIMS	RT-PCR	35 children, positive in 0%
20. Chandigarh	(RT-PCR)	Positive—9/56 (16.07%)
21. Chandigarh	RT-PCR	Positive—22/270 children (8.2%)
22. New Delhi	RT-PCR	Positive in 16/218 (7.3%)
Western India		
23. Mumbai	–	Positive in 4/46(8.69%)
24. New Delhi AIIMS & TMH Mumbai—multicentric study	Multiplex RT-PCR	Positive in 18/259 children (7%)
25. Mumbai	Conventional cytogenetics and FISH	<i>TEL AML 1</i> positive—76/428 (18%) 9.21%. Additional genetic abnormalities in positive and negative groups
26. Mumbai	Conventional cytogenetics & FISH	Positive—25/126 children (19.8%) 9 (36%) had hyperdiploidy as additional abnormality
South India		
27. Chennai	Cytogenetics and FISH	91 patients, positive in 8.3%, 2 patients—deletion of normal ETV6 allele was detected in 2 patients with the ETV6/RUNX1 gene fusion and 1 patient with a normal karyotype
28. Karnataka	FISH	1/23 children with normal karyotype, <i>TEL AML 1</i> positive—(4.3%)
29. Kerala	RT-PCR	Positive in 2/43 children—4.8%
30. Hyderabad	FISH	Positive in 3/22 children—13.64%

Abbreviations: FISH, fluorescence in situ hybridization; RT-PCR, reverse transcription polymerase chain reaction.

Table S3 Details of probes used, gene locations, labeling with fluorochromes, size if available, and signal patterns

Probes used for FISH	Genes/sequences /location—fluorochrome, and size details	Expected hybridization signal pattern	
		Normal nuclei without fusion	Abnormal nuclei with rearrangement/break
Vysis LSI ETV6 (TEL)/ RUNX1 (AML1) extra signal dual color translocation*	AML1-21q22 spectrum orange(O)—500 kb covers entire span of the gene, 8 exons with breakpoint in intron 2 TEL gene—12p13- spectrum green (G) -350 kb. Has 8 exons, and break points cluster in 15 kb region between exons 5 and 6 in intron 5. TEL gene begins between exons 3 and 5 and extends toward the telomere on chromosome 12p	Probes detect the TEL AML1 translocation, additional abnormalities as well as the extra AML1 signals without the TEL AML1 fusion signal. 2G2O	1G2O1F 1G (uninvolved TEL gene on chromosome12), 1 large Orange (uninvolved chromosome 21 with intact AML1), 1 small extra orange signal (residual AML1 on chromosome 12 involved in translocation) and 1 fusion (yellow) signal showing fusion of ETV6/RUNX1 on derivative 21.
ZytoLightETV6/RUNX1 (TEL /AML1) dual color dual fusion probe	AML1-21q22—ZyGreen (G)-550Kb extending from RH120345 prior to 3'end of RUNX to beyond 5'till D2151894 TEL/ETV6-12p13 -ZyOrange--870Kb extending from D12S1808 at 5'end to D12S391 beyond 3'region	Probes detect fusion as well as the amplification of ETV6 (TEL) and/or AML1 gene 2G2O	1G1O2F
Vysis LSI BCR-ABL dual color dual fusion translocation probe	BCR-22q11 Spectrum green (G), probe -1.5 Mb.ABL-9q34.1 Spectrum Orange (O), Probe -650kb	2G2O	1G1O2F
Zytovision BCR/ABL dual color, dual fusion Probe translocation probe	BCR-22q11 ZyOrange (O), ABL-9q34.1 Zygreen (G)	2G2O	1G1O2F
Vysis LSI MLL dual-color, break-apart rearrangement probe (Vysis)*	5'centromeric sequences to the MLL at 11q23- SpecGreen-Probe is 350 kb, 3'sequences telomeric to the MLL at 11q23- Spec orange Probe is 190 kb	2F	1F1G1O

Abbreviations: B-ALL, B-acute lymphoblastic leukemia; FISH, fluorescence in situ hybridization; RT-PCR, reverse transcription polymerase chain reaction.

*Vysis, Abbott Park, Illinois, United States; Zytovision, GmbH Bremerhaven, Germany.