

Supplementary Table 1: Classification of the different WHO2008 acute leukemia entities according to their immunophenotype measured using the ALOT.

ALOT suggested panel for further evaluation	WHO diagnosis						
	Acute Leukemias					Others	
	BCP-ALL	T-ALL	AML	AUL	MPAL	B-CLPD	AML/MDS
BCP-ALL	259/259 (100%)	-	-	-	2/13 (15.4%)	21/21 (100%)	-
T-ALL	-	71/76 (93.4%)	-	-	1/13 (7.6%)	-	-
AML	-	-	128/131 (97.7%)	3/4 (75%)	-	-	20/20 (100%)
T-ALL/AML	-	5/76 (6.6%)	3/131 (2.3%)	1/4 (25%)	8/13 (61.5%)	-	-
BCP-ALL/AML	-	-	-	-	2/13 (15.4%)	-	-
T-ALL/BCP-ALL	-	-	-	-	-	-	-

Footnotes: Results are expressed as number of positive cases/total cases and percentages values are shown between brackets.
Abbreviations: ALOT: acute leukemia orientation tube; BCP: B-cell precursor; ALL: acute lymphoblastic leukemia; AML: acute myeloblastic leukemia; AUL: acute undifferentiated leukemia; MPAL: mixed phenotype acute leukemia; B-CLPD: B-cell chronic lymphoproliferative disorders; MDS: myelodysplastic syndrome.

Supplementary Table 2: B-CPLD makers included into EuroFlow testing, according to their diagnostic applicability (see selected references).

Marker	Differential diagnosis	Normal B-cell development	B-cell homing
CD5	Deneys, 2001; Wood, 2007(23, 297)		
CD10	Deneys, 2001; Wood, 2007 ; Ek 2005 d(23, 297, 298)	Bohnhorst, 2001, van Lochem, 2004, Ingvarsson, 1999, Pascual, 1994(11, 299-301)	
CD11a	Deneys, 2001; Matos, 2006; Csanaky, 1997 (297, 302, 303)		Pals, 2007 (304)
CD11c	Deneys, 2001; Wood, 2007; Matos, 2006 (23, 297, 302)		
CD19	Deneys, 2001 (297)		
CD20	Deneys, 2001(297)	Van Lochem, 2004(11)	
CD22	Deneys, 2001; Wood, 2007(23, 297)	Van Lochem, 2004(11)	
CD23	Deneys, 2001; Wood, 2007(23, 297)	Bohnhorst, 2001; Ingvarsson, 1999; Pascual, 1994(299-301)	
CD24	Deneys, 2001(297)	Sanz, 2008; Ingvarsson, 1999(300, 305)	
CD25	Deneys, 2001; Wood, 2007(23, 297)		
CD27		Sanz, 2008; Bohnhorst, 2001(299, 305)	
CD31	Ek, 2005(298)	Jackson, 2000(306)	
CD37	Barrena, 2005 (149)	Barrena, 2005(149)	
CD38	Deneys, 2001(297)	Sanz, 2008; Bohnhorst, 2001; Ingvarsson, 1999; Pascual, 1994(299-301, 305)	
CD39		Ingvarsson, 1999; Pascual, 1994 i(300, 301)	
CD43	Deneys, 2001; Wood, 2007 (23, 297)		
CD45	Wood, 2007 (23)	Van Lochem, 2004 (11)	
CD49d	Matos, 2006; Csanaky, 1997(302, 303)		Pals, 2007 (304)
CD63	Barrena, 2005 (149)		
CD62L	Pals, 2007; Csanaky, 1997(304) (303)	Pals, 2007(304)	Pals, 2007 (304)
CD79b	Deneys, 2001; Wood, 2007 (23, 297)		
CD81	Barrena, 2005(149)	Barrena, 2005(149)	
CD95		Bohnhorst, 2001; Ingvarsson, 1999 (299, 300)	
CD103	Deneys, 2001; Wood, 2007 (23, 297)		
CD138	Wood, 2007(23)		
CD200	Palumbo, 2009, Brunetti, 2009(307, 308)		
CD305 (LAIR1)	Van der Vuurst, 1999(309)	Van der Vuurst, 1999 (28)	
Bcl-2	Wood, 2007; Menendez, 2004(23, 238)	Menendez, 2004 (10)	
CD185 (CXCR5)	Lopez-Giral, 2004; Dürig, 2001; Pals, 2007(304, 310, 311)	Dürig, 2001 (29)	Pals, 2007 (22)
HLADR	Barrena, 2005(149)		
IgM		Sanz, 2008 (23)	
κ light chains	Wood, 2007 (23)		
λ light chains	Wood, 2007 (23)		

