EXTENDED SUPPLEMENT

1. Analysis based on MEAN instead of MEDIAN values

Statistical analysis based on CD123 <u>median</u> fluorescence intensity values was repeated based on CD123 <u>mean</u> fluorescence intensity values, resulting in similar conclusions. In addition, figures visualizing <u>median</u> values were re-generated based on <u>mean</u> values.

Figure 1 from main article - Based on mean (instead of median)



Figure 2 from main article - Based on mean (instead of median)

2.A



2.B







Figures from supplement 6 - Based on mean (instead of median)

Group	Nucleated Red Blood Cells (NRBC) Maximum 98 th percentile = 739	Plasn Bp=0.3	nacytoid Dendritic Cells (PDC) 361 FKp=0.093 BFp=0.065		
2011	n=103 Wp=0.65	n=29	Wp=0.17		
2012	n=97 Wp=0.83	n=39	Wp=0.59		
2013	n=124 Wp=0.83	n=36	Wp=0.86		
2014	n=112 Wp=0.93	n=31	Wp=0.51		
2015	n=118 Wp=0.98	n=44	Wp=0.33		
2016	n=79 Wp=0.29	n=19	Wp=0.62		
-	1000 -100 0 100 1	1000	10000 1E5		
APC:CD123 MFI (mean)					



Figures from supplement 8 - Based on mean (instead of median)

Precursors







Figures from supplement 10 - Based on mean (instead of median)

AML SUBGROUPS

t(8;21) (23)	· · · · · · · · · ·
inv(16) (20)	·
t(15;17) (29)	a a good & doo W & to
KMT2A (29)	· · · · · · · · · · · · · ·
NPM1 (91)	· · · · · · · · · · · · · · · · · · ·
Mutated CEBPA (13)	
Mutated RUNX1 (6)	
Myelodysplasia Related Chang	es (70) • • • • • • • • • • • • • • • • • • •
Therapy Related (36)	
Minimal Differentiation (17)	
Without Maturation (25)	
With Maturation (19)	· · · · · · · · · · · · ·
Myeleomonocytic (15)	t and age a a
Monocytic (21)	······································
Erythroid (14)	
Megakaryocytic (13)	
huuri i huumhu	
-1000 -100 0	100 1000 10000 1E5
APC:	CD123–MFI (mean)

AML SUBGROUPS - FLT3-ITD



BCP-ALL SUBGROUPS

t(9;22) (23)					
KMT2A (14)					
t(12;21) (50)					
t(1;19) (4)					
High Hyperdiploid (46)	· · · · · · · · · · · · · · · · · · ·				
Hyperdiploid (50)	·				
Normal Karyotype (30)					
Pseudodiploid Karyotype (31)					
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-1000 -100 0	100 1000 10000 1E5				
APC:CD123-MFI (mean)					

2. Analysis based on 1000 instead of 739 as CD123 positivity cut-off

CD123-PPC vales, as used during statistical analysis, were based on the 739 intensity cut-off. Statistical analysis based on the 1000 intensity cut-off resulted in similar conclusions. In addition, figures based on the 739 intensity cut-off were re-generated based on the 1000 intensity cut-off.

Figure 3 from main article - Based on 1000 intensity cut-off (instead 739 intensity cut-off)



Figure from supplement 11 - Based on 1000 intensity cut-off (instead 739 intensity cut-off)





T-ALL – EMC-DCOG cohort



Figure from supplement 12 - Based on 1000 intensity cut-off (instead 739 intensity cut-off)

AML - SUBGROUPS BASED ON GENETICS

AML - SUBGROUPS BASED ON MATURATION



BCP-ALL - SUBGROUPS



3. CD123-MFI versus age in EMC cohort

Combining the EMC and DCOG cohort resulted in a skewed age distribution for AML and T-ALL patients since the DCOG cohort only contains pediatric patients and the EMC cohort contains pediatric and adult patients. Therefore age-related statistical analysis was repeated within the EMC cohort, in order to make sure that our conclusions were not impacted by the skewed age distribution within the combined EMC and DCOG cohort.



Figures - EMC cohort (age, pediatric versus adult)

EMC cohort





APC:CD123-MFI (median)

4. CD123-PPC versus age in EMC cohort

Combining the EMC and DCOG cohort resulted in a skewed age distribution for AML and T-ALL patients since the DCOG cohort only contains pediatric patients and the EMC cohort contains pediatric and adult patients. Therefore age-related statistical analysis was repeated within the EMC cohort, in order to make sure that our conclusions were not impacted by the skewed age distribution within the combined EMC and DCOG cohort. Following figures visualize CD123-PPC based on the 739 intensity cut-off (as used within the main article).

Figures - EMC cohort (age, continuous)



BCP-ALL - EMC cohort



T-ALL - EMC cohort



Figures - EMC cohort (age, pediatric versus adult)

