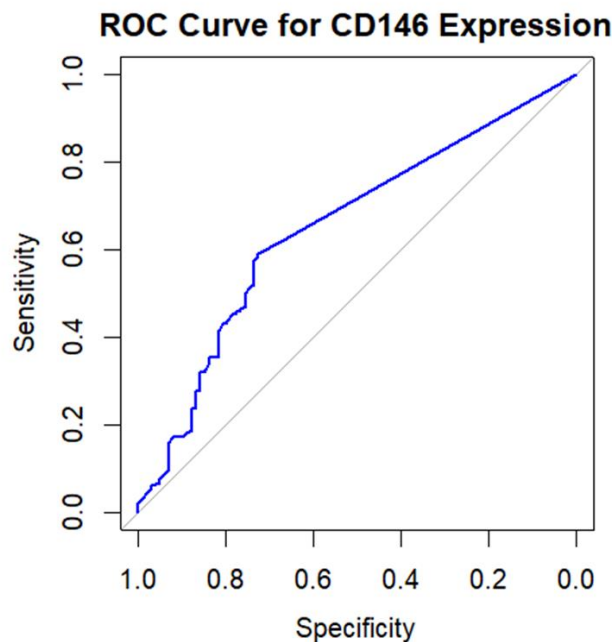**Original Article**

CD146 Molecule Expression in B Cells Acute Lymphoblastic Leukemia (B-ALLs): A Flow-Cytometric Marker for an Accurate Diagnostic Workup

Supplementary Figures and Tables

Supplementary Figure 1. Receiver Operating Characteristic (ROC) curve for CD146 expression aimed at discriminating between ALL-Ph+ and ALL-Ph-Neg. ROC curve identified 10% as the optimal cut-off to considered CD146 expression "positive", which maximizes the separation between the BCR::ABL1-positive ALLs and BCR::ABL1-negative ALLs. it would be necessary to recalculate the sensitivity, specificity, and predictive values. The 10% cut-off point on the ROC curve has a Sensitivity of 59%, Specificity of 72%, with Positive Predictive Value of 76% and Negative Predictive Value of 55%.

Supplementary Table 1. Comparison of positivity rate of the markers analyzed between Ph+ B-ALL (n=144) and B-ALLs negatives (n= 79).

Antigens	Ph + B-ALLs (n=144)	B-ALLs negative (n=79)	p-value
CD146 n (%)			< 0.001
Negative	70 (49%)	57 (72%)	
Positive	74 (51%)	22 (28%)	
CD10 n (%)			< 0.001
Negative	11 (8%)	22 (28%)	
Positive	133 (92%)	57 (72%)	
CD13 n (%)			< 0.001
Negative	70 (49%)	63 (80%)	
Positive	74 (51%)	16 (20%)	
CD33 n (%)			0.002
Negative	72 (50%)	57 (72%)	
Positive	72 (50%)	22 (28%)	
CD66c n (%)			0.025
Negative	70 (49%)	51 (65%)	
Positive	74 (51%)	28 (35%)	
CD38 n (%)			0.024
Negative	50 (35%)	16 (20%)	
Positive	94 (65%)	63 (80%)	

Supplementary Table 2. Comparison of positivity rate of the markers analyzed between B-ALLs negatives (n= 79) and Ph-like B-ALLs (n=19).

Antigens	B-ALLs negative (n=79)	Ph-like B-ALLs (n=19)	p-value
CD146 n (%) Negative Positive	57 (72%) 22 (28%)	16 (84%) 3 (16%)	0.39
CD10 n (%) Negative Positive	22 (28%) 57 (72%)	0 (0%) 19 (100%)	0.006
CD13 n (%) Negative Positive	63 (80%) 16 (20%)	16 (84%) 3 (16%)	> 0.9
CD33 n (%) Negative Positive	57 (72%) 22 (28%)	7 (37%) 12 (63%)	0.004
CD66c n (%) Negative Positive	51 (65%) 28 (35%)	14 (74%) 5 (26%)	0.4
CD38 n (%) Negative Positive	16 (20%) 63 (80%)	9 (47%) 10 (53%)	0.021

Supplementary Table 3. Comparison of positivity rate of the markers analyzed between Ph+ B-ALL (n=144) and Ph-like B-ALLs (n=19).

Antigens	Ph + B-ALLs (n=144)	Ph-like B-ALLs (n=19)	p-value
CD146 n (%) Negative Positive	70 (49%) 74 (51%)	16 (84%) 3 (16%)	0.003
CD10 n (%) Negative Positive	11 (8%) 133 (92%)	0 (0%) 19 (100%)	0.4
CD13 n (%) Negative Positive	70 (49%) 74 (51%)	16 (84%) 3 (16%)	0.004
CD33 n (%) Negative Positive	72 (50%) 72 (50%)	7 (37%) 12 (63%)	0.3
CD66c n (%) Negative Positive	70 (49%) 74 (51%)	14 (74%) 5 (26%)	0.043
CD38 n (%) Negative Positive	50 (35%) 94 (65%)	9 (47%) 10 (53%)	0.3

Supplementary Table 4. Comparison of expression of the markers analyzed between all the 3 groups: Ph+ B-ALL (n=144), Ph-like ALLs (n= 19) and B-ALLs negatives (n= 79). For this statistical analysis based on 3 groups the Kruskal-Wallis test was used.

Antigens	Ph + B-ALLs (n=144) mean ± SD (range)	Ph-like B-ALLs (n=19) mean ± SD (range)	B-ALLs negative (n=79) mean ± SD (range)	p-value
CD146 (%)	29±34 (0-97)	11±28 (0-88)	15±29 (0-90)	< 0.001
CD146 (MFI)	89±136 (1-548)	48±144 (2-620)	32±80 (0-550)	< 0.001
CD10 (%)	62±25 (1-97)	75±20 (26-90)	48±33 (0-96)	< 0.001
CD13 (%)	32±33 (0-90)	8±14 (0-42)	16±29 (0-94)	< 0.001
CD33 (%)	30±32 (0-97)	38±36 (0-90)	18±31 (0-90)	< 0.001
CD66c (%)	29±29 (0-92)	22±30 (0-90)	21±29 (0-90)	0.011
CD38 (%)	46±36 (0-97)	39±41 (0-90)	56±32 (0-96)	0.095
CD34 (%)	63±24 (1-97)	70±28 (0-90)	53±32 (0-96)	0.013