

LEGENDS TO SUPPLEMENTARY FIGURES

Suppl. Figure 1: Results of antibody titrations for the main S100-MP populations.

Histograms for each indicated antibody, its matching isotype control and an unstained control, and representative dot blots showing the raw FACS data.

Suppl. Figure 2: gating strategy for each multistaining antibody combination.

S100-MP were analyzed using a protocol with both forward scatter (FSC) and sidescatter (SSC) set to the logarithmic mode and gated by their distinct pattern. Double fluorescence plots in the general MP gate demonstrate distinct populations of S100-MP stained for the indicated antibodies. All used antibodies were titrated against their matching isotype control and only used after Fc-block. Panel (A) shows the gating strategy for multistaining combinations detecting Annexin-FITC double-positive S100-MP together with the indicated antibodies for CD4-APC, CD8-Pacific Blue, CD14-Pacific Blue, CD15-PE-Cy 5.5 and CD41-Pacific Blue. Panel (B) shows the gating strategy for detection of iNKT cell-derived S100-MP. Gate 1: SSC and FSC for the S100-MP pattern. Gate 2: FSC and Annexin V-FITC S100-MP. Double fluorescence plots of events in gate 2 demonstrate distinct populations of S100-MP stained for Vbeta11-PE and Valpha24-APC. These MP that were positive for Annexin V, Vbeta11 and Valpha24 were assigned to iNKT cells.

Suppl. Figure 3: Weekly variability of S100-MP in individual subjects and lack of correlation of S100-MP with their peripheral cells of origin.

(A) Individual variability of MP concentrations was determined from 16 healthy controls with a second serum sample obtained after one week. Data were similar for MP percentages obtained with (as shown here) or without prior subtraction of platelet-derived (CD41+) MP, which we and others

¹⁶ showed to be decreased in plasma vs. serum. The bold number shows the % difference of the means (not bold) of the indicated MP population between both time points. Differences (percent in bold) between week 0 and 1 were calculated using the following formula: $(\text{mean plasma MP} - \text{mean serum MP}) / \text{mean serum MP}$. (B) Correlations between measured MP populations and their respective peripheral blood cell counts. Correlations were calculated using the Pearson algorithm, with r-values and p-values shown in the lower right corner of each graph. Variations in numbers are due to limitation of serum.

Suppl. Figure 4: AUROC curves for differentiation between CHC or NAFL/NASH and healthy controls.

AUROC curves were created using those cut-off values that yielded the highest likelihood to differentiate between CHC or NAFL and healthy controls (see also Suppl. Tab.2). (A) CHC vs healthy controls; (B) NAFL/NASH vs healthy controls.

1. Healthy volunteers

Major Inclusion Criteria

- < 20g alcohol per day
- Age 18 years
- normal ALT and AST

Major Exclusion Criteria

- Any liver disease
 - Concomitant severe illness
 - Any significant medical disorder
-

2. Subjects with chronic hepatitis C

Major Inclusion Criteria

- < 20g alcohol per day
- Age 18 years
- positive hepatitis C RNA

Major Exclusion Criteria

- Other liver disease
 - Concomitant severe illness
 - Decompensated liver disease using standard clinical criteria and bilirubin, PT and albumin
-

3. Subjects with nonalcoholic fatty liver disease (NAFL)

Major Inclusion Criteria

- < 20g alcohol per day
- Age 18 years
- Elevated ALT on at least 2 occasions, at least 3 months apart, in addition to one of the following:
 - BMI > 25
 - hyperlipidemia
 - glucose intolerance
 - fatty infiltration on abdominal imaging

Major Exclusion Criteria

- Other liver disease
 - On medications associated with steatosis
 - Concomitant severe illness
 - Decompensated liver using standard clinical criteria and bilirubin, PT and albumin
-

CHC vs NAFL

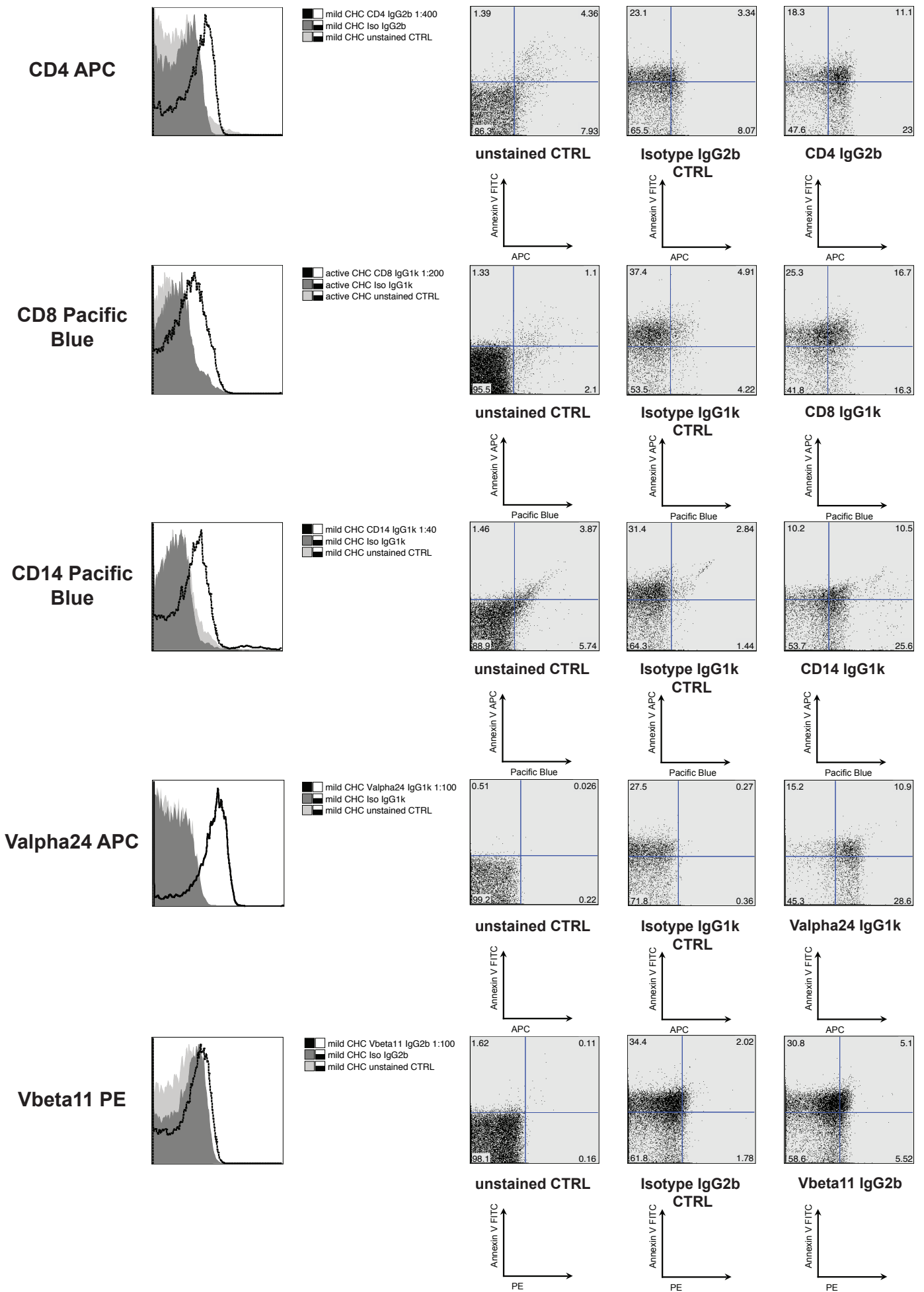
MP marker	cut-off in %	sensitivity in %	specificity in %	AUROC	SD	p-value
CD4+	17.55	84.62	47.37	0.5664	0.0068	0.2624
CD8+	24.6	12.31	97.62	0.6516	0.0564	0.0083
CD14+	9.71	100	96.55	0.9994	0.0011	<0.0001
CD15+	17.1	77.94	96.55	0.9736	0.0137	<0.0001
CD41+	15.55	17.91	96.67	0.8465	0.0517	<0.0001
iNKT	3.63	87.30	96.30	0.9671	0.0181	<0.0001

CHC vs healthy

MP marker	cut-off in %	sensitivity in %	specificity in %	AUROC	SD	p-value
CD4+	15.75	52.63	97.73	0.7563	0.0593	0.0001
CD8+	20.15	19.05	97.73	0.7265	0.0552	0.0003
CD14+	4.27	34.48	82.93	0.6762	0.0631	0.01253
CD15+	24.65	75.86	58.54	0.5870	0.0697	0.2173
CD41+	32.35	40	70.73	0.5289	0.0697	0.6795
iNKT	1.13	11.11	95.12	0.6061	0.0703	<0.1409

NAFL vs healthy

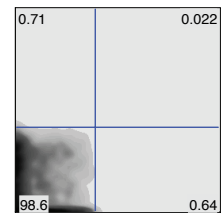
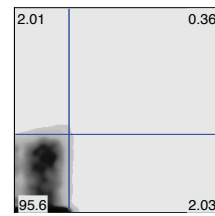
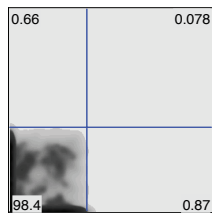
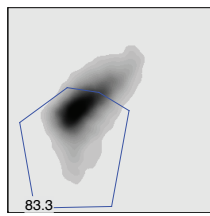
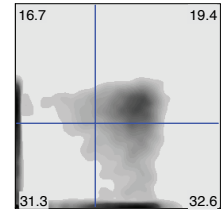
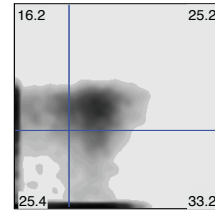
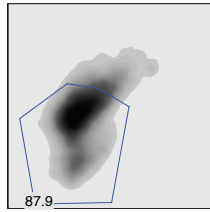
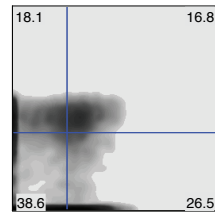
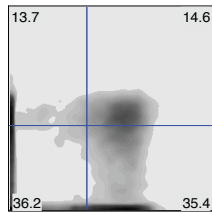
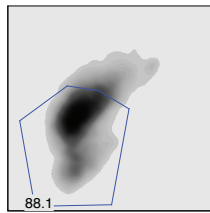
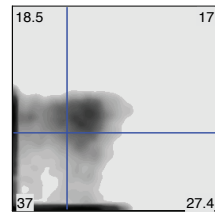
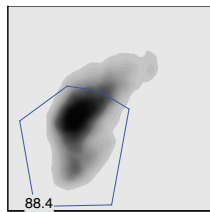
MP marker	cut-off in %	sensitivity in %	specificity in %	AUROC	SD	p-value
CD4+	15.70	40	97.73	0.8530	0.0367	<0.0001
CD8+	19.90	27.69	97.73	0.8416	0.0398	<0.0001
CD14+	16.65	48.15	87.80	0.8288	0.0489	<0.0001
CD15+	14.06	47.06	90.24	0.8372	0.0468	<0.0001
CD41+	16.75	35.82	92.68	0.8138	0.0446	<0.0001
iNKT	4.64	58.73	95.12	0.9172	0.0302	<0.0001



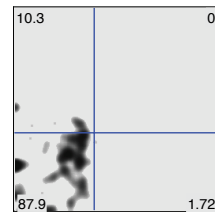
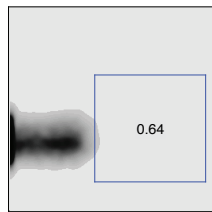
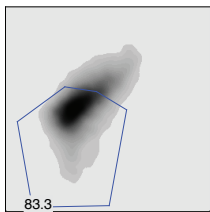
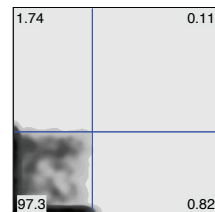
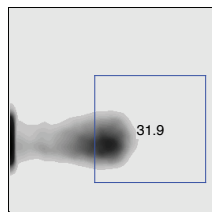
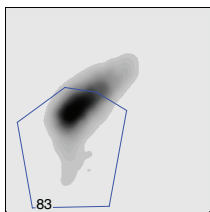
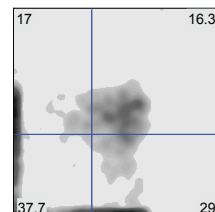
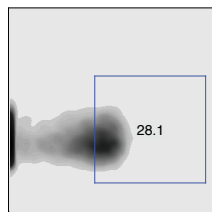
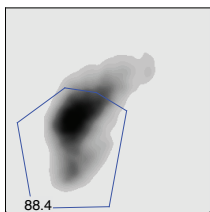
Supplementary Figure 1

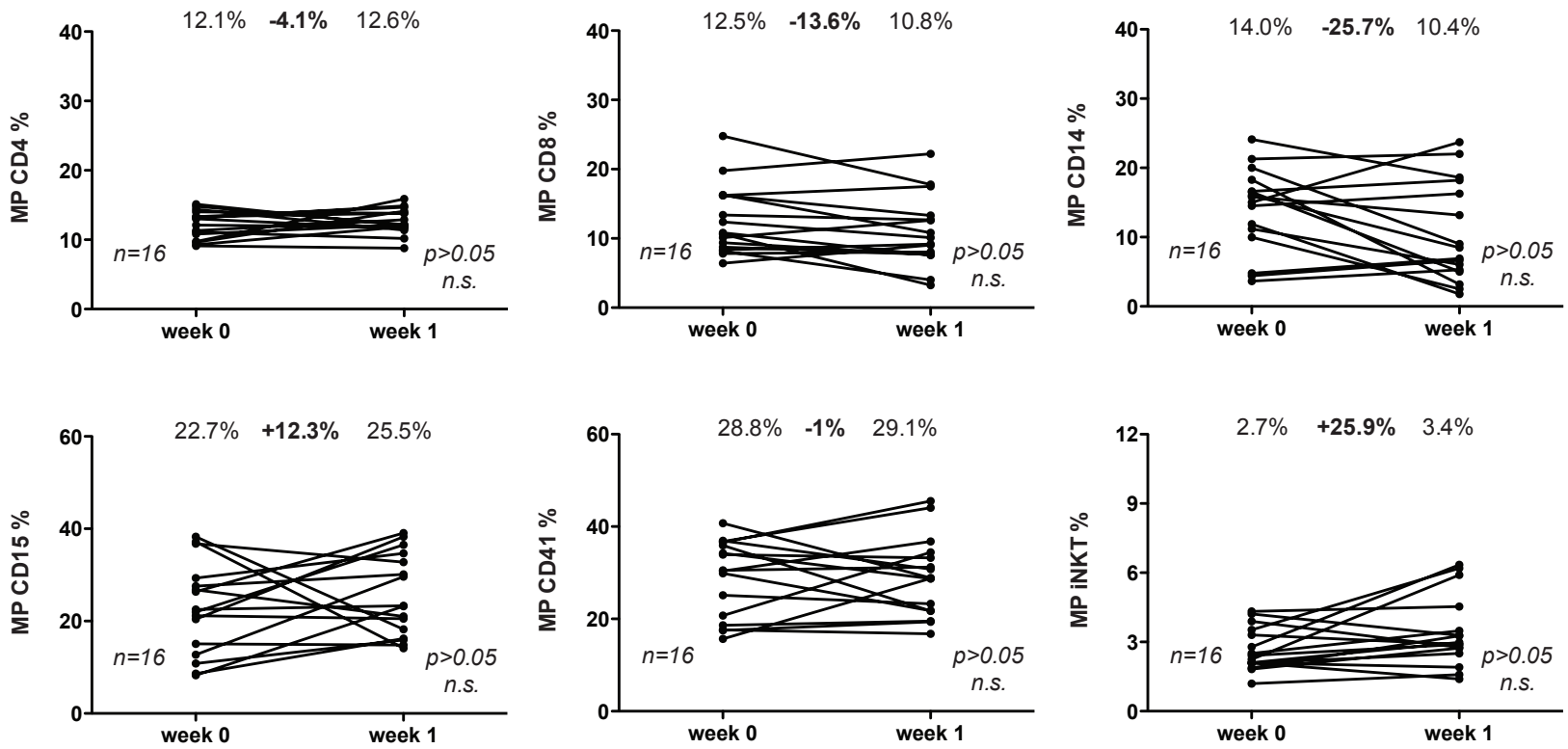
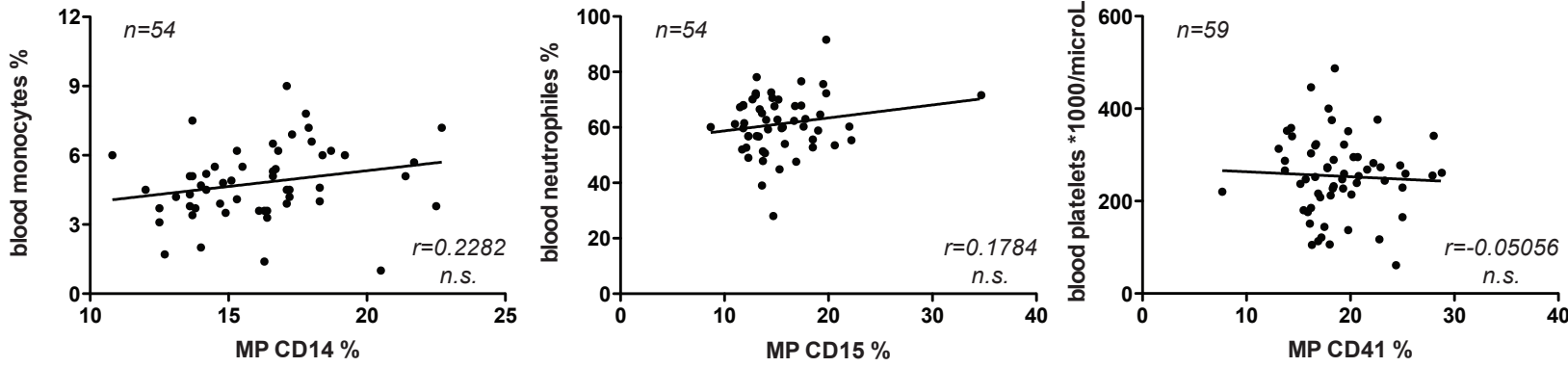
A

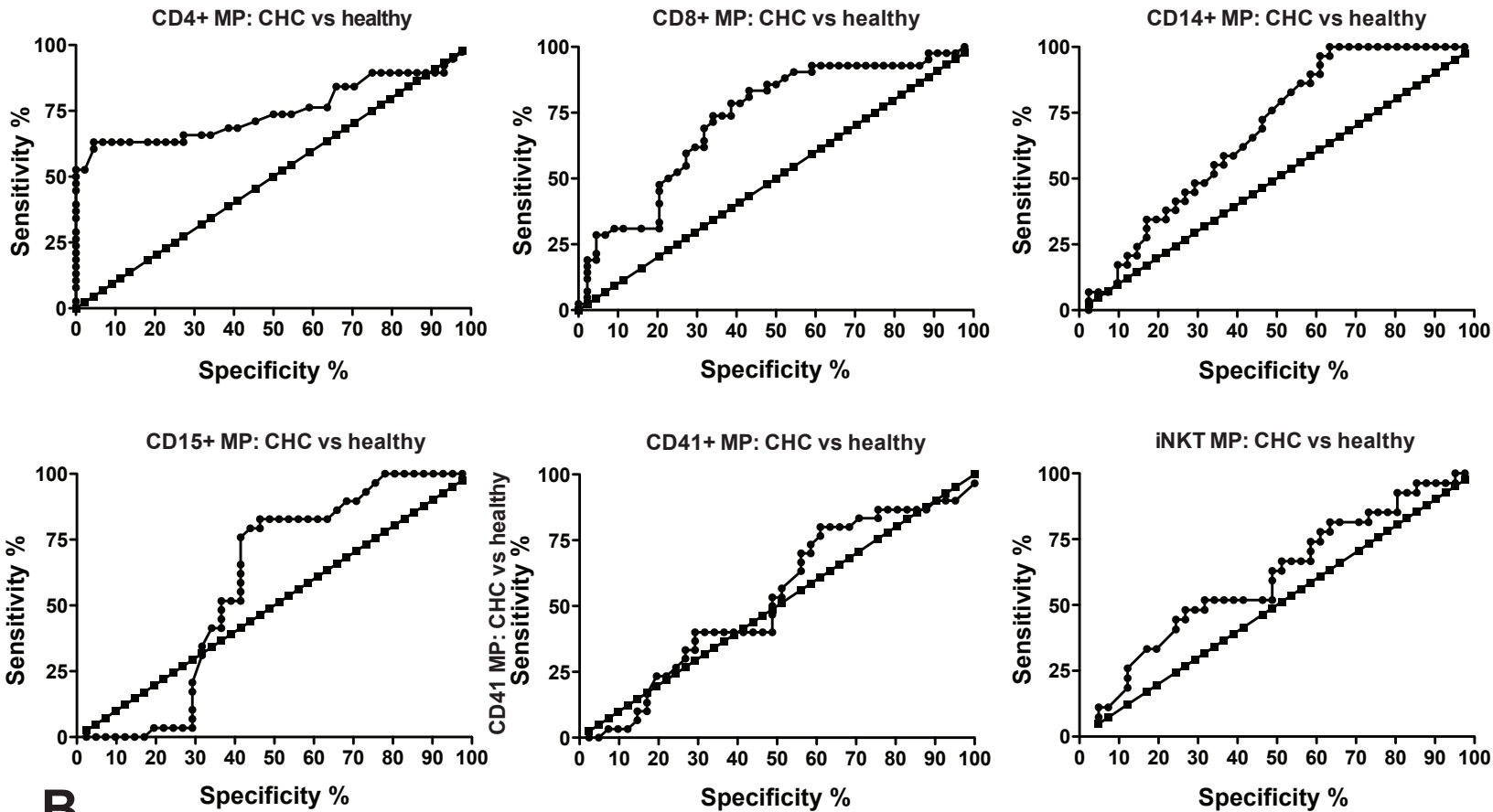
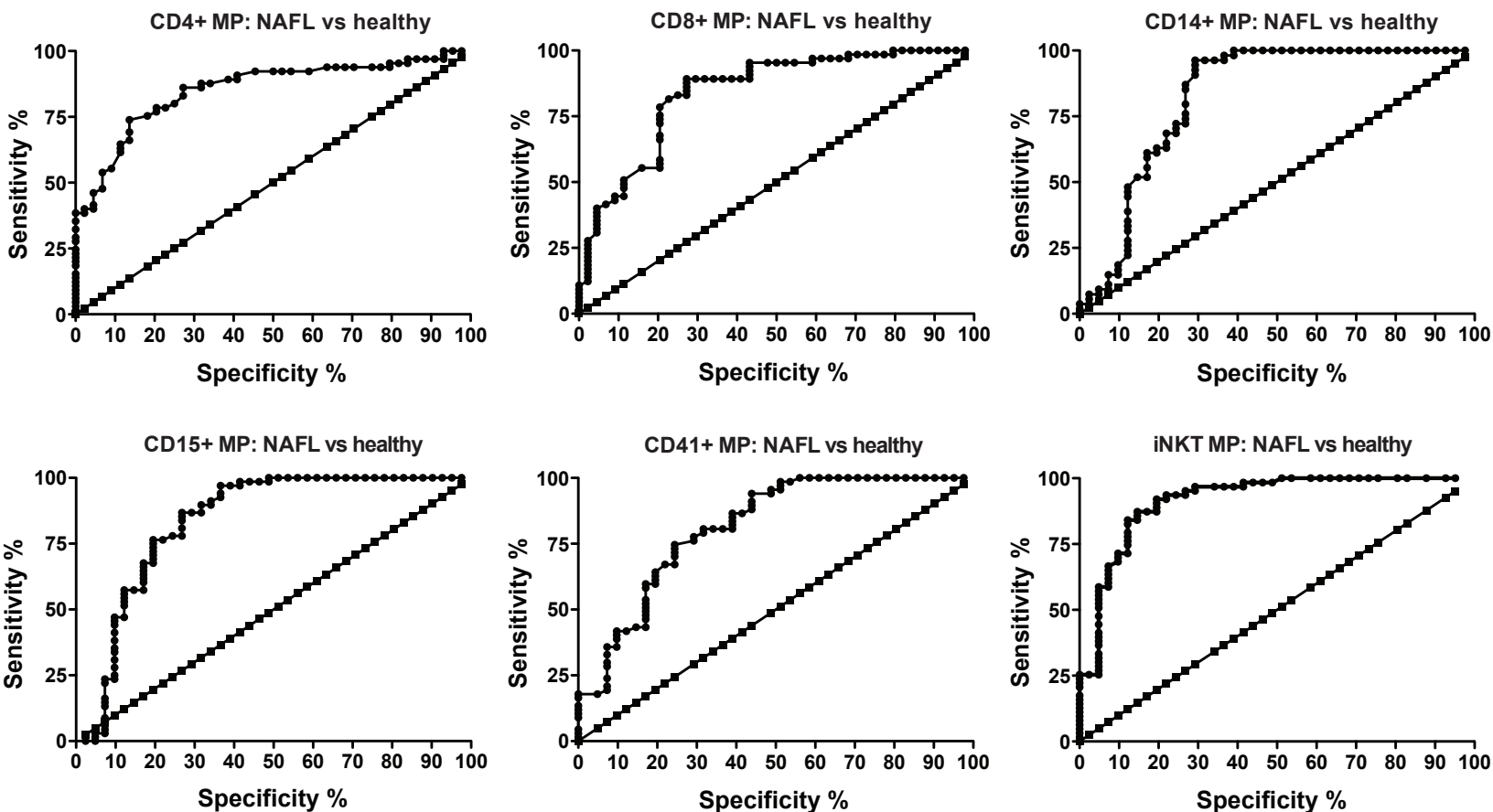
unstained CTRL

multistaining
combination
Amultistaining
combination
Bmultistaining
combination
CSSC
↑
FSC →Annexin V FITC
↑
APC →Annexin V FITC
↑
Pacific Blue →Annexin V FITC
↑
PE-Cy 5.5 →**B**

unstained CTRL

Annexin V FITC
gate CTRLmultistaining
combination
CSSC
↑
FSC →FSC
↑
Annexin V FITC →Vbeta11 PE
↑
Valpha24 APC →**Supplementary Figure 2**

A**B****Supplementary Figure 3**

A**B**

● Sensitivity%

■ Identity%

Supplementary Figure 4

