

Sysmex Testing and Recommendations.

The Sysmex XN-V has a number of modes for the measurement of peripheral blood.

1. Whole Blood (WB) takes 160 μ l.
2. Low aspiration (LA) recommends 122 μ l but can be as low as 70 μ l (LA70).
3. 1:1 dilution of LA70, (LA35) 35 μ l blood + 35 μ l buffer. Certain values need to be calculated by the investigator.
4. Pre-dilution (PD) is 20 μ l of blood +120 μ l buffer. Calculations/results are pre-set for the 1:7 dilution.

All modes provide reproducible but not identical results. The most important factor in any experiment is to use the same mode throughout. For a low volume mode #3 (35 μ l + 35 μ l) seems to provide data that is closer to that from whole blood.

Data is attached from 3 separate experiments:

Figure 1a/b: 9 replicates from pooled blood samples in 4 modes

Figure 2a/b: 7 replicates from pooled blood including the #3 the 1:1 35 μ l volume.

Figure 3: 4 replicates from B6, Control (AA) and sickle (SS) mouse blood including the 1:1 35 μ l mode

AP Core Sysmex Recommendations			
Approval Date:	5/5/25	Approved by:	DRA
Revision History			
Revision Date	Version #	Change	Sections
5/5/25	1.0	New document	N/A

Figure 1a, scales expanded.

Sysmex (3/7/25)

Thalassemia WT mouse (C57Bl/6)

WB Whole blood (160ul)
LA Low Aspiration (122ul)
LA70 Low Aspiration (70ul)
PD Pre-dilution (20ul blood + 120 buffer)

Data 9+ replicates +/- SD

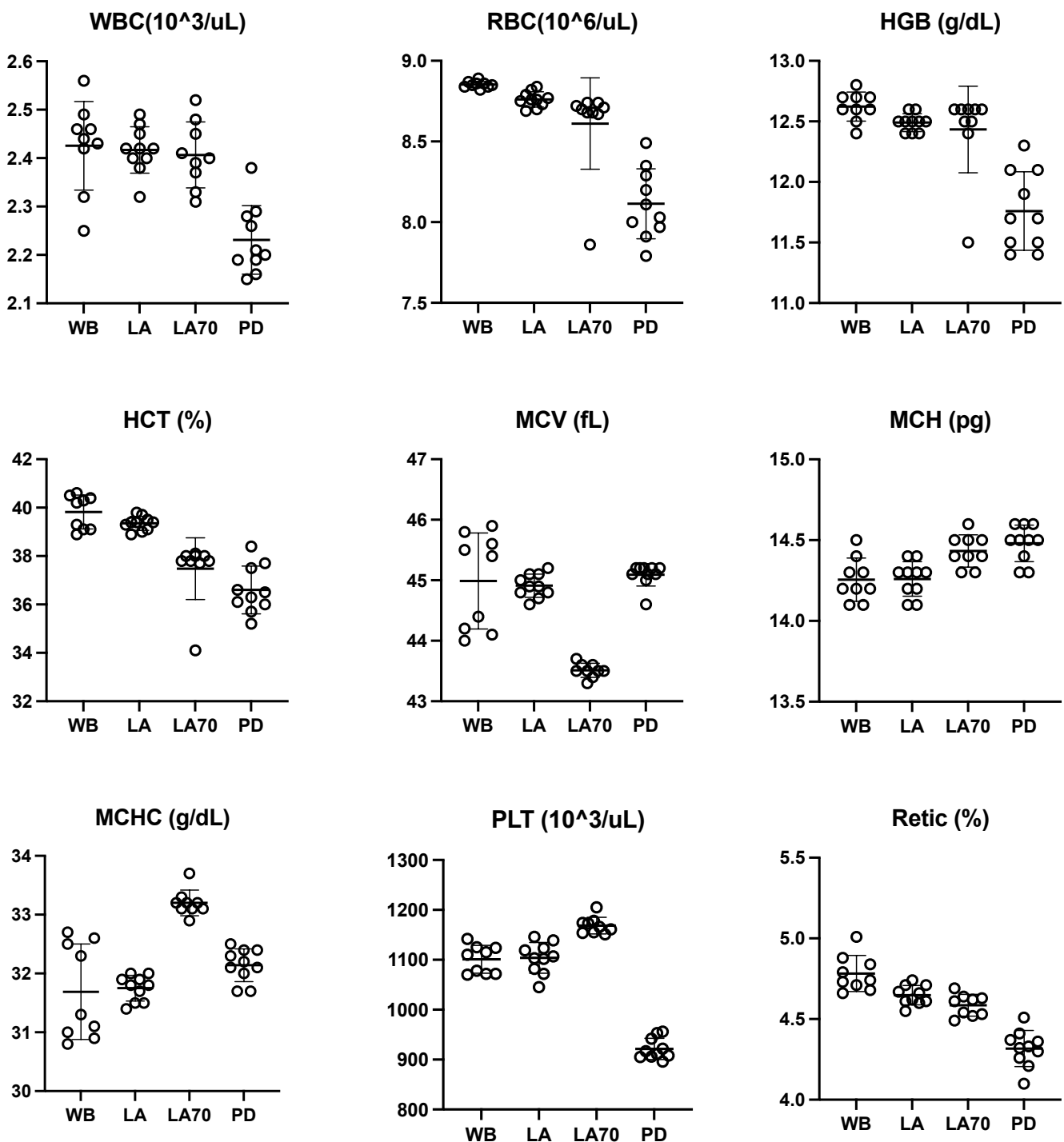


Figure 1b, full scale.

Sysmex (3/7/25)

Thalassemia WT mouse (C57BL/6)

WB	Whole blood	(160ul)
LA	Low aspiration	(122ul)
LA70	Low aspiration	(70ul)
PD	Pre-dilution	(20ul blood + 120 buffer)

Data 9+ replicates +/- SD

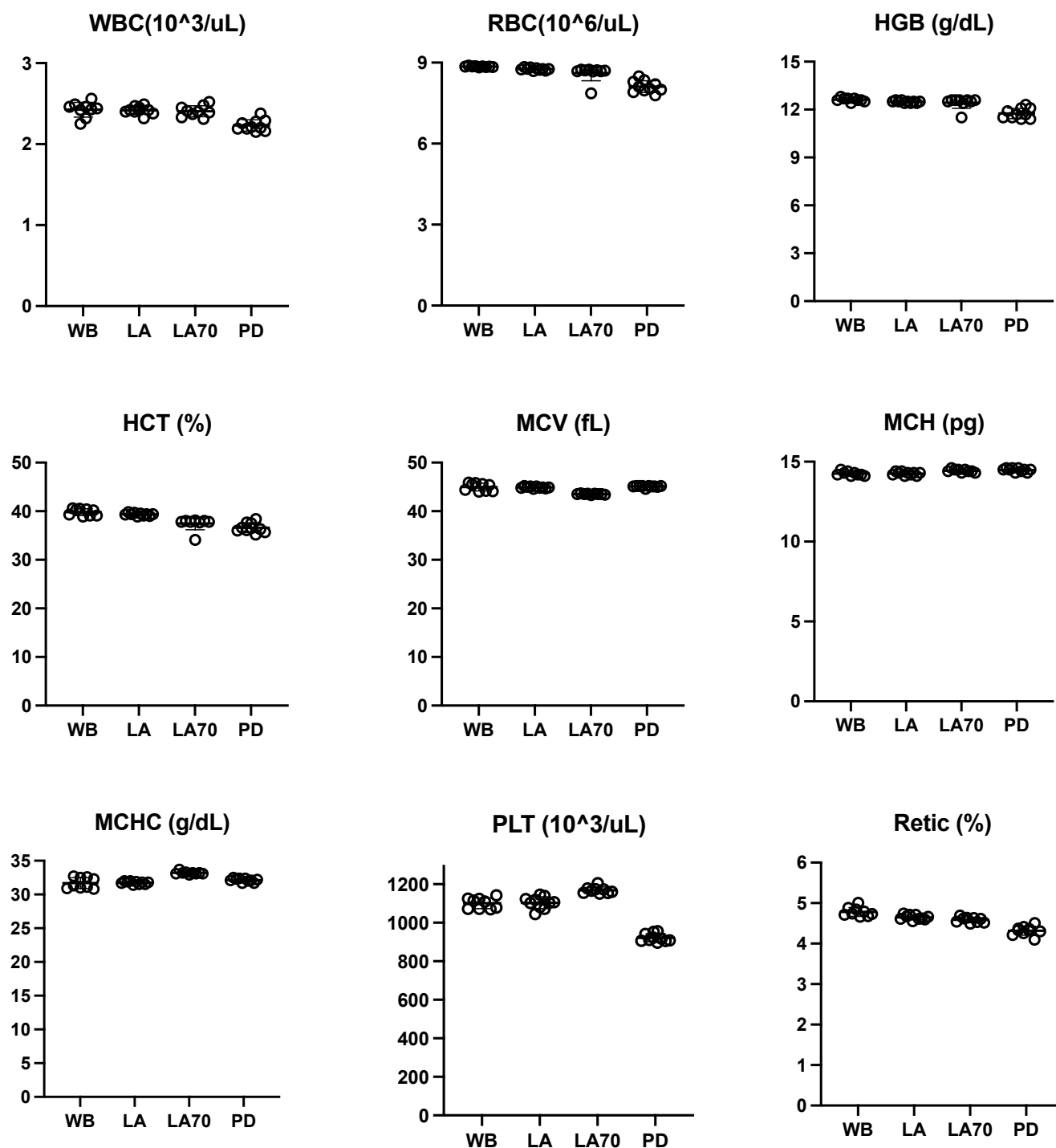


Figure 2a, scales expanded.

Sysmex (3/21/25)

Control sickle cell mouse (AA)

LA Low aspiration (122ul)
LA70 Low aspiration (70ul)
LA35 Low aspiration (35ul + 35ul)
PD Pre-dilution (20ul blood + 120 buffer)

Data 7+ replicates +/- SD

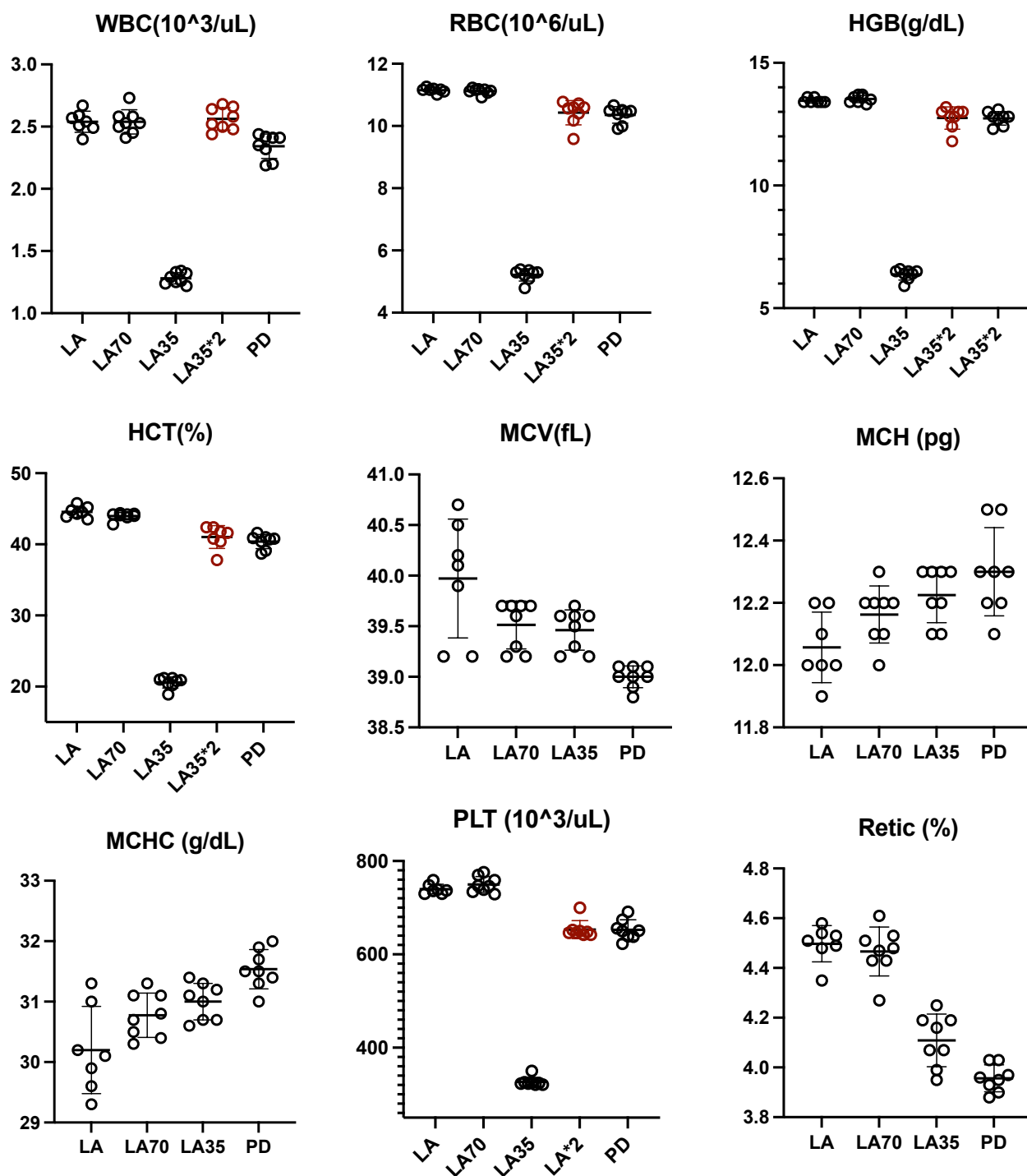


Figure 2b, full scale.

Sysmex (3/21/25)

Control sickle cell mouse (AA)

LA Low aspiration (122ul)
LA70 Low aspiration (70ul)
LA735 Low aspiration (35ul+35ul)
PD Pre-dilution (20ul blood + 120 buffer)

Data 7+ replicates +/- SD

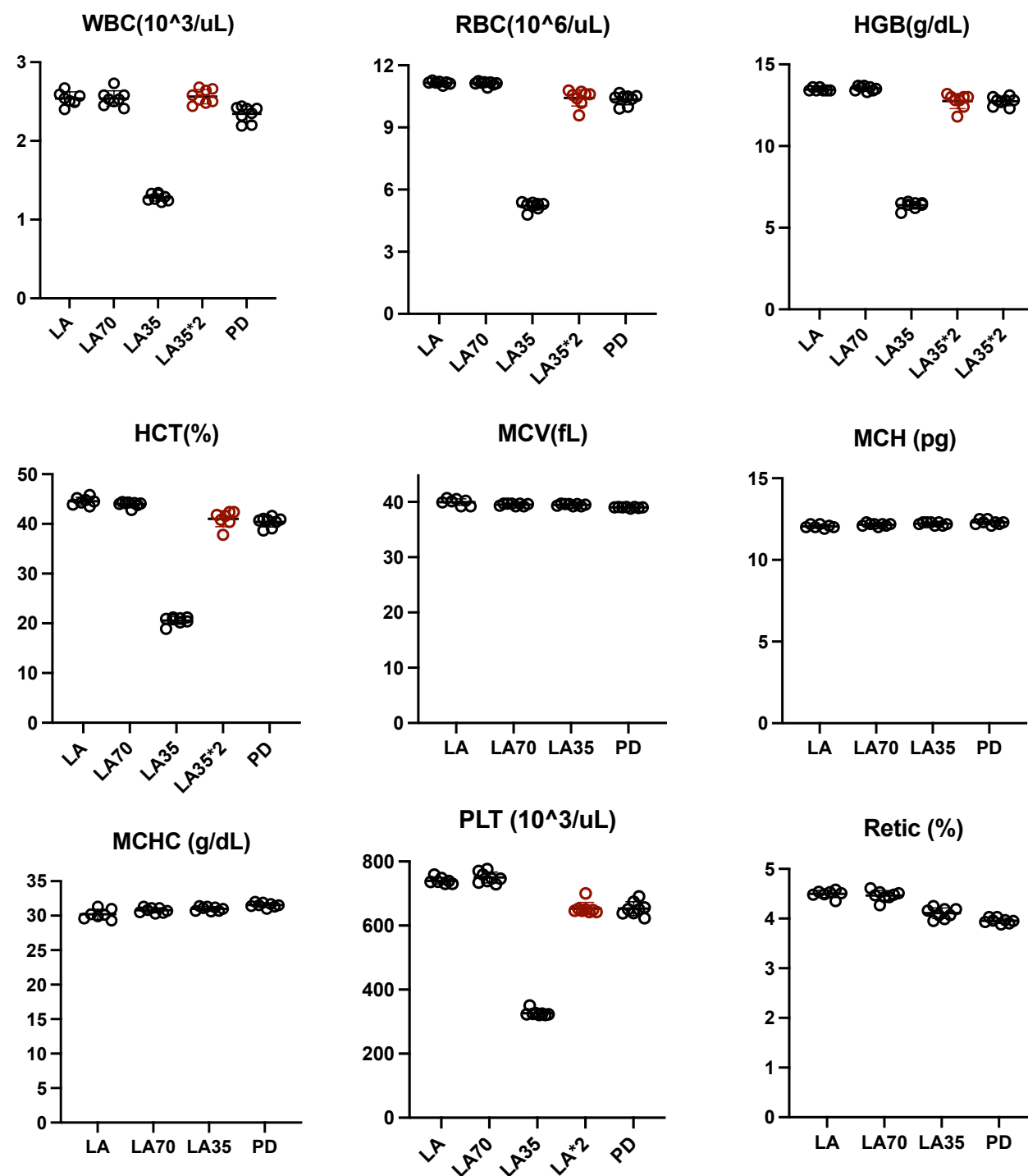


Figure 3

