

LOW CONTROL		Sysmex K1000 K-4500	Sysmex KX21N, XP300	Abbott CELL-DYN	Mindray BC-2800 BC-3000	ABX Micros45/60	Nihon Kohden MEK SERIES CELTAC ALPHA	MEDONIC CA series Swelab	ORPHEE MYTHIC 18	
LOT 04-2311 EXP: 2024-02-28										
Parameters		Mean	Mean	Mean	Mean	Mean	Mean	Mean	mean	+ Range
WBC	x10 ⁹ /L	2.8	2.8	2.9	3.0	3.2	2.8	2.8	2.9	0.6
Lymph #	x10 ⁹ /L	Na	2.2	2.2	2.1	2.2	2.0	2.2	2.0	1.0
Mid # (Mxd*)	x10 ⁹ /L	Na	0.2	0.2	Na	0.2	Na	Na	Na	0.4
Gran#(Neut*)	x10 ⁹ /L	Na	1.5	1.5	Na	1.5	Na	Na	Na	0.8
Lymph	%	Na	57.0	57.0	52.0	57.0	48.0	57.0	48.0	10
Mid (Mxd*)	%	Na	6.0	6.0	Na	6.0	Na	Na	Na	5.0
Gran (Neut*)	%	Na	37	37	Na	37	Na	Na	Na	10
RBC	x10 ¹² /L	2.91	2.87	2.81	2.89	2.9	2.78	2.80	2.85	0.20
Hgb	g/dL	8.3	8.2	8.0	8.7	8.0	8.4	7.8	8.0	0.5
Hct	%	22.9	22.6	23.0	23.1	23.5	22.2	22.8	23.0	3.0
MCV	fL	78.8	78.7	81.8	79.9	81.0	79.8	81.4	81.0	5.0
MCH	pg	28.5	28.5	28.4	30.0	27.5	30.2	27.8	28.0	3.0
MCHC	g/dL	36.2	36.2	34.7	37.6	34.0	37.8	34.3	34.7	3.0
RDW-CV	%	12.6	12.3	14.0	14.5	13.5	12.0	13.5	13.5	3.5
PLT	x10 ⁹ /L	67	65	66	80	70	66	71	70	30
MPV	fL	10.3	10.8	11.5	9.5	11.8	10.0	11.8	11.5	2.0
NORMAL CONTROL		Sysmex K1000 K-4500	Sysmex KX21N, XP300	Abbott CELL-DYN	Mindray BC-2800 BC-3000	ABX Micros45/60	Nihon Kohden MEK SERIES CELTAC ALPHA	MEDONIC CA series Swelab	ORPHEE MYTHIC 18	
LOT 04-2311 EXP: 2024-02-28										
Parameters		Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	± Range
WBC	x10 ⁹ /L	7.2	7.3	7.2	7.8	7.2	7.3	7.2	7.3	1.2
Lymph #	x10 ⁹ /L	Na	2.8	2.8	2.8	2.8	2.8	2.8	Na	1.5
Mid # (Mxd*)	x10 ⁹ /L	Na	0.3	0.7	0.7	0.7	0.4	0.7	Na	0.3
Gran#(Neut*)	x10 ⁹ /L	Na	4.1	4.2	4.2	4.2	4.0	4.2	Na	1.2
Lymph	%	Na	38.0	41.0	38.0	41.0	38.0	41.0	41.0	10
Mid (Mxd*)	%	Na	5.0	8.0	8.0	8.0	5.0	8.0	8.0	5.0
Gran (Neut*)	%	Na	57.0	51.0	54.0	51.0	57.0	51.0	51.0	10
RBC	x10 ¹² /L	4.48	4.39	4.37	4.42	4.39	4.27	4.34	4.39	0.25
Hgb	g/dL	13.3	13.3	12.9	13.4	13.2	13.4	12.9	13.0	0.6
Hct	%	35.4	35.1	35.0	37.0	35.5	35.2	35.0	35.1	3.0
MCV	fL	79.0	79.9	80.1	83.7	80.8	82.4	80.6	79.9	6.0
MCH	pg	29.7	30.2	29.5	30.3	30.0	31.4	29.7	29.6	3.0
MCHC	g/dL	37.6	37.9	36.8	36.2	37.1	38.0	36.8	37.0	3.0
RDW-CV	%	14.0	12.8	14.0	14.0	14.0	12.5	14.0	14.0	3.5
PLT	x10 ⁹ /L	220	220	215	248	225	220	220	221	50
MPV	fL	9.5	10.5	9.5	9.0	10.0	9.8	9.5	9.5	3.0
HIGH CONTROL		Sysmex K1000 K-4500	Sysmex KX21N, XP300	Abbott CELL-DYN	Mindray BC-2800 BC-3000	ABX Micros45/60	Nihon Kohden MEK SERIES CELTAC ALPHA	MEDONIC CA series Swelab	ORPHEE MYTHIC 18	
LOT 04-2311 EXP: 2024-02-28										
Parameters		Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	± Range
WBC	x10 ⁹ /L	18.0	17.8	18.5	20.1	19.0	18.4	18.2	18.8	2.0
Lymph #	x10 ⁹ /L	Na	17.0	17.0	16.0	17.0	16.0	17.0	17.0	1.5
Mid # (Mxd*)	x10 ⁹ /L	Na	Na	Na	Na	Na	Na	Na	Na	1.0
Gran#(Neut*)	x10 ⁹ /L	Na	Na	Na	Na	Na	Na	Na	Na	5.5
Lymph	%	Na	88.0	88.0	76.0	88.0	76.0	88.0	88.0	10
Mid (Mxd*)	%	Na	Na	Na	Na	Na	Na	Na	Na	5.0
Gran (Neut*)	%	Na	Na	Na	Na	Na	Na	Na	Na	10
RBC	x10 ¹² /L	5.53	5.48	5.40	5.35	5.48	5.39	5.42	5.43	0.30
Hgb	g/dL	18.0	18.4	18.3	18.6	18.5	18.7	18.4	18.4	1.0
Hct	%	48.2	47.8	47.6	49.7	48.7	48.8	47.7	48.2	3.0
MCV	fL	87.1	87.2	88.1	92.8	88.9	90.5	88.0	88.7	6.0
MCH	pg	32.5	33.5	33.8	34.7	33.7	34.7	33.9	33.8	3.0
MCHC	g/dL	37.3	38.5	38.4	37.4	38.0	38.3	38.5	38.1	3.0
RDW-CV	%	14.0	14.0	12.3	14.0	12.3	12.5	12.3	12.3	3.5
PLT	x10 ⁹ /L	575	575	550	555	553	570	555	550	70
MPV	fL	9.8	10.0	8.0	8.3	8.0	9.8	8.0	8.0	3.0

LOW CONTROL		DIAGON D-CELL30 60 Series	BAYER SEIMENS ADVIA60	HYCELL/ MS9	ERMA CONVERGENT	Diatron Abacus Jr.	PROKAN PE6800	PROKAN PE6000	RAYTO	± Range
LOT 04-2311 EXP: 2024-02-28										
Parameters		Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	± Range
WBC	x10 ⁹ /L	3.0	3.2	2.8	2.9	2.8	3.1	3.1	3.2	0.6
Lymph #	x10 ⁹ /L	2.1	2.2	2.2	2.2	2.2	2.1	2.1	2.2	1.0
Mid # (Mxd*)	x10 ⁹ /L	Na	0.2	Na	0.2	Na	Na	Na	0.2	0.4
Gran #(Neut*)	x10 ⁹ /L	Na	1.5	Na	1.5	Na	Na	Na	1.5	0.8
Lymph %	%	52.0	57.0	57.0	57.0	57.0	52.0	52.0	57.0	10
Mid (Mxd*)	%	Na	6.0	Na	6.0	Na	Na	Na	6.0	5.0
Gran (Neut*)	%	Na	37	Na	37	Na	Na	Na	37	10
RBC	x10 ¹² /L	2.89	2.9	2.80	2.81	2.80	2.7	2.7	2.9	0.20
Hgb	g/dL	8.7	8.0	7.8	8.0	7.8	7.4	7.4	8.0	0.5
Hct	%	23.1	23.5	22.8	23.0	22.8	19.8	19.8	23.5	3.0
MCV	fL	79.9	81.0	81.4	81.8	81.4	73.3	73.3	81.0	5.0
MCH	pg	30.0	27.5	27.8	28.4	27.8	27.4	27.4	27.5	3.0
MCHC	g/dL	37.6	34.0	34.3	34.7	34.3	37.4	37.4	34.0	3.0
RDW-CV	%	14.5	13.5	13.5	14.0	13.5	20.0	20.0	13.5	3.5
PLT	x10 ⁹ /L	80	70	71	66	71	99	99	70	30
MPV	fL	9.5	11.8	11.8	11.5	11.8	9.5	9.5	11.8	2.0
NORMAL CONTROL		DIAGON D-CELL30 60 Series	BAYER SEIMENS ADVIA60	HYCELL/ MS9	ERMA CONVERGENT	Diatron Abacus Jr.	PROKAN PE6800	PROKAN PE6000	RAYTO	± Range
LOT 04-2311 EXP: 2024-02-28										
Parameters		Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	± Range
WBC	x10 ⁹ /L	7.8	7.2	7.2	7.2	7.2	7.4	7.4	7.2	1.2
Lymph #	x10 ⁹ /L	2.8	2.8	2.8	2.8	2.8	2.5	2.5	2.8	1.5
Mid # (Mxd*)	x10 ⁹ /L	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.3
Gran #(Neut*)	x10 ⁹ /L	4.2	4.2	4.2	4.2	4.2	4.0	4.0	4.2	1.2
Lymph %	%	38.0	41.0	41.0	41.0	41.0	38.0	38.0	41.0	10
Mid (Mxd*)	%	8.0	8.0	8.0	8.0	8.0	8	8	8.0	5.0
Gran (Neut*)	%	54.0	51.0	51.0	51.0	51.0	54.0	54.0	51.0	10
RBC	x10 ¹² /L	4.42	4.39	4.34	4.37	4.34	4.46	4.46	4.39	0.25
Hgb	g/dL	13.4	13.2	12.9	12.9	12.9	12.7	12.7	13.2	0.6
Hct	%	37.0	35.5	35.0	35.0	35.0	36.5	36.5	35.5	3.0
MCV	fL	83.7	80.8	80.6	80.1	80.6	81.8	81.8	80.8	6.0
MCH	pg	30.3	30.0	29.7	29.5	29.7	28.4	28.4	30.0	3.0
MCHC	g/dL	36.2	37.1	36.8	36.8	36.8	34.8	34.8	37.1	3.0
RDW-CV	%	14.0	14.0	14.0	14.0	14.0	15.2	15.2	14.0	3.5
PLT	x10 ⁹ /L	248	225	220	215	220	250	250	225	50
MPV	fL	9.0	10.0	9.5	9.5	9.5	8.5	8.5	10.0	3.0
HIGH CONTROL		DIAGON D-CELL30 60 Series	BAYER SEIMENS ADVIA60	HYCELL/ MS9	ERMA CONVERGENT	Diatron Abacus Jr.	PROKAN PE6800	PROKAN PE6000	RAYTO	± Range
LOT 04-2311 EXP: 2024-02-28										
Parameters		Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	± Range
WBC	x10 ⁹ /L	20.1	19.0	18.2	18.5	18.2	19.5	19.5	19.0	2.0
Lymph #	x10 ⁹ /L	16.0	17.0	17.0	17.0	17.0	16.0	16.0	17.0	1.5
Mid # (Mxd*)	x10 ⁹ /L	Na	Na	Na	Na	Na	Na	Na	Na	1.0
Gran #(Neut*)	x10 ⁹ /L	Na	Na	Na	Na	Na	Na	Na	Na	5.5
Lymph %	%	76.0	88.0	88.0	88.0	88.0	76.0	76.0	88.0	10
Mid (Mxd*)	%	Na	Na	Na	Na	Na	Na	Na	Na	5.0
Gran (Neut*)	%	Na	Na	Na	Na	Na	Na	Na	Na	10
RBC	x10 ¹² /L	5.35	5.48	5.42	5.40	5.42	5.52	5.51	5.48	0.30
Hgb	g/dL	18.6	18.5	18.4	18.3	18.4	18.1	18.1	18.5	1.0
Hct	%	49.7	48.7	47.7	47.6	47.7	49.0	49.0	48.7	3.0
MCV	fL	92.8	88.9	88.0	88.1	88.0	88.3	88.3	88.9	6.0
MCH	pg	34.7	33.7	33.9	33.8	33.9	32.6	32.6	33.7	3.0
MCHC	g/dL	37.4	38.0	38.5	38.4	38.5	37.0	37.0	38.0	3.0
RDW-CV	%	14.0	12.3	12.3	12.3	12.3	14.5	14.5	12.3	3.5
PLT	x10 ⁹ /L	555	553	555	550	555	545	545	553	70
MPV	fL	8.3	8.0	8.0	8.0	8.0	8.0	8.0	8.0	3.0

LOW CONTROL		Sysmex XS-500i, XS-800i XS-1000i	Sysmex XT-1800i XT-2000i	Sysmex XE-2100 XE-5000	Sysmex XN- Series	MINDRAY BC-5 series	MINDRAY BC-6800	MINDRAY BC-6200	± Range
L LOT 04-2311 EXP: 2024-02-28									
Parameters		Mean	Mean	Mean	Mean	Mean	Mean	Mean	± Range
WBC	x10 ⁹ /L	2.7	2.7	2.7	2.8	2.9	2.5	2.6	0.7
RBC	x10 ¹² /L	2.91	2.91	2.91	2.80	2.90	2.91	2.89	0.20
Hgb	g/dL	8.5	8.5	8.5	8.5	8.8	8.4	8.4	0.5
Hct	%	24.8	24.4	24.5	23.3	24.0	24.0	24.8	3.0
MCV	fL	86.4	83.8	84.1	83.2	82.7	82.5	86.0	5.0
MCH	pg	29.6	29.2	29.2	30.3	30.3	28.8	29.1	3.0
MCHC	g/dL	34.3	34.8	34.7	36.4	36.6	35.0	33.3	3.0
RDW-CV	%	14.0	14.3	14.3	13.8	13.5	14.8	15.5	3.5
PLT	x10 ⁹ /L	68	75	75	68	86	76	70	30
MPV	fL	10.7	10.8	10.8	11.0	8.0	10.3	11.2	2.0
NORMAL CONTROL		Sysmex XS-500i, XS-800i XS-1000i	Sysmex XT-1800i XT-2000i	Sysmex XE-2100 XE-5000	Sysmex XN- Series	MINDRAY BC-5 series	MINDRAY BC-6800	MINDRAY BC-6200	± Range
LOT 04-2311 EXP: 2024-02-28									
Parameters		Mean	Mean	Mean	Mean	Mean	Mean	Mean	± Range
WBC	x10 ⁹ /L	7.5	7.3	7.3	7.5	7.4	6.5	6.90	1.2
RBC	x10 ¹² /L	4.50	4.47	4.47	4.37	4.40	4.48	4.40	0.25
Hgb	g/dL	13.7	13.6	13.6	13.6	13.4	13.4	13.2	0.6
Hct	%	38.0	36.7	36.7	36.1	38.0	37.0	38.4	3.0
MCV	fL	84.4	82.1	82.1	82.6	86.3	82.6	87.2	6.0
MCH	pg	30.4	30.5	30.5	31.1	30.4	29.9	30.0	3.0
MCHC	g/dL	36.2	37.0	37.0	37.6	35.2	36.2	34.4	3.0
RDW-CV	%	14.5	14.8	14.8	13.0	13.5	15.0	15.5	5.0
PLT	x10 ⁹ /L	235	230	230	235	250	250	245	50
MPV	fL	10.8	11.0	11.0	10.9	8.5	10.5	10.7	3.0
HIGH CONTROL		Sysmex XS-500i, XS-800i XS-1000i	Sysmex XT-1800i XT-2000i	Sysmex XE-2100 XE-5000	Sysmex XN- Series	MINDRAY BC-5 series	MINDRAY BC-6800	MINDRAY BC-6200	± Range
LOT 04-2311 EXP: 2024-02-28									
Parameters		Mean	Mean	Mean	Mean	Mean	Mean	Mean	± Range
WBC	x10 ⁹ /L	16.6	16.9	16.6	16.0	17.7	17.5	16.7	2.0
RBC	x10 ¹² /L	5.65	5.58	5.58	5.47	5.60	5.52	5.50	0.30
Hgb	g/dL	18.5	18.5	18.5	18.4	18.1	18.0	18.0	1.0
Hct	%	51.5	49.5	49.7	48.7	52.9	49.8	51.3	3.0
MCV	fL	91.1	88.7	89.0	89.0	94.5	90.2	93.2	6.0
MCH	pg	32.7	33.1	33.1	33.6	32.3	32.6	32.7	3.0
MCHC	g/dL	35.9	37.3	37.2	37.8	34.2	36.1	35.0	3.0
RDW-CV	%	14.8	15.1	15.1	14.0	13.8	15.0	15.0	3.5
PLT	x10 ⁹ /L	620	590	590	635	598	610	628	70
MPV	fL	10.0	10.3	10.3	10.0	7.8	10.0	10.0	3.0

*To use the control for 5part-Diff instrument, Please set the instrument on CBC-mode function then do the sampling.

CONTROL		DANAM DATACELL 16/18	ABX PENTRA60 60C,120	PENTRA 80, 80XL	BACKER 9110PLUS	ORPHEE MYTHIC22 22AL	ORPHEE MYTHIC60	NihonKohden CELLTAC E,ES CELLTAC F	Nihon Kohden CELLTAC G	
LOT 04-2311 EXP: 2024-02-28										
Parameters		Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	± Range
WBC	x10 ⁹ /L	2.9	2.8	2.8	3.2	1.6	1.8	3.1	3.0	0.8
RBC	x10 ¹² /L	2.85	2.87	2.87	2.9	2.77	2.89	2.95	2.8	0.20
Hgb	g/dL	8.0	8.2	8.2	8.0	8.3	8.6	8.4	7.3	0.5
Hct	%	23.0	22.6	22.6	23.5	23.0	24.1	25.5	26.0	3.0
MCV	fL	81.0	78.7	78.7	81.0	83.0	83.4	86.4	92.8	5.0
MCH	pg	28.0	28.5	28.5	27.5	29.9	29.7	28.5	26.0	3.0
MCHC	g/dL	34.7	36.2	36.2	34.0	36.0	35.7	32.9	28.0	3.0
RDW-CV	%	13.5	12.3	12.3	13.5	14.0	13.2	15.5	13.9	3.5
PLT	x10 ⁹ /L	70	65	65	70	75	75	80.0	70.0	30
MPV	fL	11.5	10.8	10.8	11.8	10.8	11.0	7.0	9.2	2.0
NORMAL CONTROL		DANAM DATACELL 16/18	ABX PENTRA60 60C,120	PENTRA 80, 80XL	BACKER 9110PLUS	ORPHEE MYTHIC22 22AL	ORPHEE MYTHIC60	NihonKohden CELLTAC E,ES CELLTAC F	Nihon Kohden CELLTAC G	
LOT 04-2311 EXP: 2024-02-28										
Parameters		Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	± Range
WBC	x10 ⁹ /L	7.3	7.3	7.3	7.2	5.0	6.0	7.6	8.2	1.2
RBC	x10 ¹² /L	4.39	4.39	4.39	4.39	4.25	4.36	4.45	4.39	0.25
Hgb	g/dL	13.0	13.3	13.3	13.2	13.2	13.7	13.4	12.6	0.6
Hct	%	35.1	35.1	35.1	35.5	35.7	36.7	37.6	41.3	3.0
MCV	fL	79.9	79.9	79.9	80.8	84.0	84.1	84.5	94.0	6.0
MCH	pg	29.6	30.2	30.2	30.0	31.0	31.4	30.1	28.7	3.0
MCHC	g/dL	37.0	37.9	37.9	37.1	37.0	37.3	35.6	30.5	3.0
RDW-CV	%	14.0	12.8	12.8	14.0	14.0	13.5	15.5	15.0	5.0
PLT	x10 ⁹ /L	221	220	220	225	228	260	230	238	50
MPV	fL	9.5	10.5	10.5	10.0	11.0	10.8	8.0	9.4	3.0
HIGH CONTROL		DANAM DATACELL 16/18	ABX PENTRA60 60C,120	PENTRA 80, 80XL	BACKER 9110PLUS	ORPHEE MYTHIC22 22AL	ORPHEE MYTHIC60	NihonKohden CELLTAC E,ES CELLTAC F	Nihon Kohden CELLTAC G	
LOT 04-2311 EXP: 2024-02-28										
Parameters		Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	± Range
WBC	x10 ⁹ /L	18.8	17.8	17.8	19.0	10.0	12.8	17.8	19.0	2.0
RBC	x10 ¹² /L	5.43	5.48	5.48	5.48	5.28	5.38	5.44	5.54	0.30
Hgb	g/dL	18.4	18.4	18.4	18.5	18.1	17.9	18.3	18.0	1.0
Hct	%	48.2	47.8	47.8	48.7	46.7	49.5	51.3	56.0	3.0
MCV	fL	88.7	87.2	87.2	88.9	88.4	92.0	94.3	101.0	6.0
MCH	pg	33.8	33.5	33.5	33.7	34.3	32.2	33.6	32.5	3.0
MCHC	g/dL	38.1	38.5	38.5	38.0	38.7	36.2	35.9	32.1	3.0
RDW-CV	%	12.3	14.0	14.0	12.3	12.8	13.8	15.8	15.5	3.5
PLT	x10 ⁹ /L	550	575	575	553	565	620	575	620	70
MPV	fL	8.0	10.0	10.0	8.0	9.5	10.2	8.0	8.0	3.0

*To use the control for 5part-Diff instrument, Please set the instrument on CBC-mode function then do the sampling.