

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 04-2212 EXP: 2023-03-06										
Parameters		Mean	Mean	Mean	Mean	Mean	Mean	Mean	mean	± Range
WBC	x10 <sup>9</sup> /L	3.9	3.9	3.8	3.9	3.9	3.9	3.6	3.7	0.6
Lymph #	x10 <sup>9</sup> /L	Na	2.2	2.2	2.0	2.2	2.0	2.2	2.0	1.0
Mid # (Mxd*)	x10 <sup>9</sup> /L	Na	0.2	0.2	Na	0.2	Na	Na	Na	0.4
Gran#(Neut*)	x10 <sup>9</sup> /L	Na	1.5	1.5	Na	1.5	Na	Na	Na	0.8
Lymph	%	Na	57.0	57.0	48.0	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 <sup>12</sup> /L	3.19	3.15	3.15	3.10	3.12	3.10	3.08	3.10	0.20
Hgb	g/dL	8.7	8.6	8.6	8.9	8.5	8.9	8.4	8.4	0.5
Hct	%	24.5	24.2	24.0	24.2	24.0	24.2	23.4	23.5	3.0
MCV	fL	77.0	76.8	76.2	78.0	77.0	78.0	76.0	75.8	7.0
MCH	pg	27.3	27.3	27.3	28.7	27.2	28.7	27.2	27.0	3.0
MCHC	g/dL	35.5	35.5	35.8	36.7	35.4	36.7	35.9	35.7	3.0
RDW-CV	%	19.0	18.0	15.0	17.0	15.0	17.0	15.0	15.0	4.5
PLT	x10 <sup>9</sup> /L	95	88	88	99	88	99	88	88	30
MPV	fL	9.7	11.8	10.5	8.9	10.5	8.9	10.2	10.5	3.0
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 04-2212 EXP: 2023-03-06										
Parameters		Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	± Range
WBC	x10 <sup>9</sup> /L	7.4	7.4	7.4	7.5	7.4	7.4	7.4	7.5	1.5
Lymph #	x10 <sup>9</sup> /L	Na	3.8	3.8	3.5	3.8	3.8	3.8	Na	1.5
Mid # (Mxd*)	x10 <sup>9</sup> /L	Na	0.5	0.5	1.0	0.5	0.5	0.5	Na	0.8
Gran#(Neut*)	x10 <sup>9</sup> /L	Na	3.1	3.1	3.0	3.1	3.1	3.1	Na	1.2
Lymph	%	Na	51.0	51.0	45.0	51.0	51.0	51.0	45.0	10
Mid (Mxd*)	%	Na	5.5	5.5	8.0	5.5	5.5	5.5	8.0	5.0
Gran (Neut*)	%	Na	43.5	43.5	47.0	43.5	43.5	43.5	47.0	10
RBC	x10 <sup>12</sup> /L	4.27	4.18	4.23	4.20	4.25	4.13	4.20	4.23	0.25
Hgb	g/dL	12.4	12.5	12.7	12.5	12.8	12.3	12.7	12.7	0.8
Hct	%	34.6	33.8	34.4	34.8	34.9	34.3	34.0	34.2	3.0
MCV	fL	81.0	80.8	80.4	82.8	80.5	83.0	79.2	80.3	7.0
MCH	pg	29.0	30.0	29.3	29.7	29.3	29.8	29.1	29.1	3.0
MCHC	g/dL	35.8	37.0	36.9	36.0	36.6	35.8	37.3	37.1	4.0
RDW-CV	%	16.0	14.5	14.0	14.8	13.0	13.0	13.0	13.0	4.5
PLT	x10 <sup>9</sup> /L	245	236	240	245	240	245	238	240	60
MPV	fL	10.5	12.5	9.5	9.5	9.5	12.0	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 04-2212 EXP: 2023-03-06										
Parameters		Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	± Range
WBC	x10 <sup>9</sup> /L	20.0	20.0	20.0	21.0	20.2	21.0	19.2	20.0	2.0
Lymph #	x10 <sup>9</sup> /L	Na	17.0	17.0	16.0	17.0	16.0	17.0	17.0	1.5
Mid # (Mxd*)	x10 <sup>9</sup> /L	Na	Na	Na	Na	Na	Na	Na	Na	1.0
Gran#(Neut*)	x10 <sup>9</sup> /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 <sup>12</sup> /L	5.50	5.40	5.38	5.40	5.47	5.40	5.38	5.43	0.35
Hgb	g/dL	17.8	18.5	18.5	18.5	18.8	18.5	18.7	19.0	1.0
Hct	%	49.0	48.0	48.0	50.2	48.3	50.2	47.3	48.0	4.0
MCV	fL	89.0	89.0	89.2	93.0	88.3	93.0	88.0	88.4	7.0
MCH	pg	32.3	34.2	34.3	34.2	34.3	34.2	34.7	35.0	3.0
MCHC	g/dL	36.3	38.5	38.5	36.8	39.0	36.8	39.5	39.5	4.0
RDW-CV	%	16.5	13.3	13.0	14.0	13.0	14.0	13.0	13.0	4.5
PLT	x10 <sup>9</sup> /L	570	550	555	535	565	535	570	580	75
MPV	fL	10.0	12.0	11.0	9.5	11.0	9.5	11.0	11.0	3.0

LOW CONTROL		DIAGON D-CELL30 60 Series	BAYER SEIMENS ADVIA60	HYCELL/ MS9	ERMA CONVERGENT	Diatron Abacus Jr.	PROKAN PE6800	PROKAN PE6000	RAYTO	
LOT 04-2212 EXP: 2023-03-06										
Parameters		Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	± Range
WBC	x10 <sup>9</sup> /L	3.9	3.9	3.9	3.8	3.6	3.3	3.3	3.9	0.6
Lymph #	x10 <sup>9</sup> /L	2.0	2.2	2.0	2.2	3.6	2.6	2.6	2.2	1.0
Mid # (Mxd*)	x10 <sup>9</sup> /L	Na	0.2	Na	0.2	Na	0.3	0.3	0.2	0.4
Gran # (Neut*)	x10 <sup>9</sup> /L	Na	1.5	Na	1.5	Na	0.4	0.4	1.5	0.8
Lymph	%	48.0	57.0	48.0	57.0	84.0	78.0	78.0	57.0	10
Mid (Mxd*)	%	Na	6.0	Na	6.0	Na	10	10	6.0	5.0
Gran (Neut*)	%	Na	37	Na	37	Na	12.0	12.0	37	10
RBC	x10 <sup>12</sup> /L	3.10	3.12	3.10	3.15	3.08	2.83	2.83	3.12	0.20
Hgb	g/dL	8.9	8.5	8.9	8.6	8.4	6.8	6.8	8.5	0.5
Hct	%	24.2	24.0	24.2	24.0	23.4	24.9	24.9	24.0	3.0
MCV	fL	78.0	77.0	78.0	76.2	76.0	88.0	88.0	77.0	7.0
MCH	pg	28.7	27.2	28.7	27.3	27.2	24.0	24.0	27.2	3.0
MCHC	g/dL	36.7	35.4	36.7	35.8	35.9	27.3	27.3	35.4	3.0
RDW-CV	%	17.0	15.0	17.0	15.0	15.0	16.6	16.6	15.0	4.5
PLT	x10 <sup>9</sup> /L	99	88	87	88	88	91	91	88	30
MPV	fL	8.9	10.5	8.9	10.5	10.2	11.8	11.8	10.5	3.0
NORMAL CONTROL		DIAGON D-CELL30 60 Series	BAYER SEIMENS ADVIA60	HYCELL/ MS9	ERMA CONVERGENT	Diatron Abacus Jr.	PROKAN PE6800	PROKAN PE6000	RAYTO	
LOT 04-2212 EXP: 2023-03-06										
Parameters		Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	± Range
WBC	x10 <sup>9</sup> /L	7.5	7.4	7.4	7.4	7.4	7.0	7.0	7.4	1.5
Lymph #	x10 <sup>9</sup> /L	3.5	3.8	3.5	3.8	3.8	3.8	3.8	3.8	1.5
Mid # (Mxd*)	x10 <sup>9</sup> /L	1.0	0.5	0.1	0.5	0.5	0.5	0.5	0.5	0.8
Gran # (Neut*)	x10 <sup>9</sup> /L	3.0	3.1	3.0	3.1	3.1	2.6	2.6	3.1	1.2
Lymph	%	45.0	51.0	45.0	51.0	51.0	54.5	54.5	51.0	10
Mid (Mxd*)	%	8.0	5.5	8.0	5.5	5.5	7.0	7.0	5.5	5.0
Gran (Neut*)	%	47.0	43.5	47.0	43.5	43.5	38.5	38.5	43.5	10
RBC	x10 <sup>12</sup> /L	4.20	4.25	4.22	4.25	4.20	4.19	4.19	4.25	0.25
Hgb	g/dL	12.5	12.8	12.8	12.8	12.7	12.1	12.1	12.8	0.8
Hct	%	34.8	34.9	34.4	34.9	34.0	40.2	40.2	34.9	3.0
MCV	fL	82.8	80.5	80.6	80.5	79.2	96.1	96.1	80.5	7.0
MCH	pg	29.7	29.3	30.3	29.3	29.1	28.8	28.8	29.3	3.0
MCHC	g/dL	36.0	36.6	37.2	36.6	37.3	30.0	30.0	36.6	4.0
RDW-CV	%	14.8	13.0	14.0	13.0	13.0	15.9	15.9	13.0	4.5
PLT	x10 <sup>9</sup> /L	245	240	240	240	238	245	245	240	60
MPV	fL	9.5	9.5	9.5	9.5	9.5	11.2	11.2	9.5	3.0
HIGH CONTROL		DIAGON D-CELL30 60 Series	BAYER SEIMENS ADVIA60	HYCELL/ MS9	ERMA CONVERGENT	Diatron Abacus Jr.	PROKAN PE6800	PROKAN PE6000	RAYTO	
LOT 04-2212 EXP: 2023-03-06										
Parameters		Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	± Range
WBC	x10 <sup>9</sup> /L	21.0	20.2	21.0	20.0	19.2	21.5	21.5	20.2	2.0
Lymph #	x10 <sup>9</sup> /L	16.0	17.0	16.0	17.0	17.0	16.5	16.5	17.0	1.5
Mid # (Mxd*)	x10 <sup>9</sup> /L	Na	Na	Na	Na	Na	2.1	2.1	Na	1.0
Gran # (Neut*)	x10 <sup>9</sup> /L	Na	Na	Na	Na	Na	3.0	3.0	Na	5.5
Lymph	%	76.0	88.0	76.0	88.0	88.0	76.0	76.0	88.0	10
Mid (Mxd*)	%	Na	Na	Na	Na	Na	10	10	Na	5.0
Gran (Neut*)	%	Na	Na	Na	Na	Na	14.0	14.0	Na	10
RBC	x10 <sup>12</sup> /L	5.40	5.47	5.40	5.38	5.38	5.53	5.53	5.47	0.35
Hgb	g/dL	18.5	18.8	18.5	18.5	18.7	16.4	16.4	18.8	1.0
Hct	%	50.2	48.3	50.2	48.0	47.3	54.2	54.2	48.3	4.0
MCV	fL	93.0	88.3	93.0	89.2	88.0	98.1	98.1	88.3	7.0
MCH	pg	34.2	34.3	34.2	34.3	34.7	29.6	29.6	34.3	3.0
MCHC	g/dL	36.8	39.0	36.8	38.5	39.5	30.2	30.2	39.0	4.0
RDW-CV	%	14.0	13.0	14.0	13.0	13.0	16.2	16.2	13.0	4.5
PLT	x10 <sup>9</sup> /L	535	565	495	555	570	600	600	565	75
MPV	fL	9.5	11.0	9.5	11.0	11.0	11.6	11.6	11.0	3.0

LOW CONTROL		Sysmex XS-500i, XS-800i XS-1000i	Sysmex XT-1800i XT-2000i	Sysmex XE-2100 XE-5000	Sysmex XN-550 XN-350	MINDRAY BC-5300 BC-5800 BC-5150	MINDRAY 6000 Series	Nihon Kohden CELLTAC E,ES CELLTAC F	Nihon Kohden CELLTAC G	
LOT 04-2212 EXP: 2023-03-06										
Parameters		Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	± Range
WBC	x10 <sup>9</sup> /L	3.8	3.7	3.8	3.5	3.9	3.0	3.9	3.9	1.0
RBC	x10 <sup>12</sup> /L	3.18	3.20	3.20	3.10	3.15	3.18	3.05	3.03	0.20
Hgb	g/dL	9.2	9.4	9.4	8.8	9.2	9.0	8.9	8.3	0.5
Hct	%	24.8	24.8	24.8	23.8	25.5	24.8	25.0	26.0	3.0
MCV	fL	78.0	77.5	77.5	76.7	81.0	78.0	82.0	85.8	7.0
MCH	pg	29.0	29.4	29.4	28.3	29.2	28.3	29.1	27.4	3.0
MCHC	g/dL	37.0	37.0	37.0	37.0	36.0	36.3	35.6	32.0	3.0
RDW-CV	%	16.9	16.0	16.0	17.0	16.5	17.0	17.0	16.5	4.5
PLT	x10 <sup>9</sup> /L	88	90	88	88	99	98	98	98	30
MPV	fL	12.1	12.3	12.3	12.1	8.9	10.0	8.0	10.7	3.0
NORMAL CONTROL		Sysmex XS-500i, XS-800i XS-1000i	Sysmex XT-1800i XT-2000i	Sysmex XE-2100 XE-5000	Sysmex XN-550 XN-350	MINDRAY BC-5300 BC-5800 BC-5150	MINDRAY 6000 Series	Nihon Kohden CELLTAC E,ES CELLTAC F	Nihon Kohden CELLTAC G	
LOT 04-2212 EXP: 2023-03-06										
Parameters		Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	± Range
WBC	x10 <sup>9</sup> /L	7.5	7.4	7.4	7.5	7.5	7.3	7.8	7.8	1.5
RBC	x10 <sup>12</sup> /L	4.32	4.30	4.30	4.28	4.18	4.26	4.15	4.12	0.30
Hgb	g/dL	12.8	12.9	12.9	12.7	12.7	12.7	12.6	12.0	0.9
Hct	%	36.0	35.6	35.6	35.3	35.0	35.3	36.0	36.6	4.0
MCV	fL	83.3	82.8	82.8	82.4	83.7	82.8	86.7	88.8	7.0
MCH	pg	29.6	30.0	30.0	29.6	30.4	29.8	30.3	29.1	4.0
MCHC	g/dL	35.5	36.2	36.2	36.0	36.3	36.0	35.0	32.7	4.0
RDW-CV	%	14.0	14.0	14.0	13.5	13.0	14.5	15.0	14.5	5.0
PLT	x10 <sup>9</sup> /L	230	230	230	245	250	245	260	260	55
MPV	fL	12.8	12.7	12.7	12.5	11.0	11.5	8.0	11.5	3.0
HIGH CONTROL		Sysmex XS-500i, XS-800i XS-1000i	Sysmex XT-1800i XT-2000i	Sysmex XE-2100 XE-5000	Sysmex XN-550 XN-350	MINDRAY BC-5300 BC-5800 BC-5150	MINDRAY 6000 Series	Nihon Kohden CELLTAC E,ES CELLTAC F	Nihon Kohden CELLTAC G	
LOT 04-2212 EXP: 2023-03-06										
Parameters		Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	± Range
WBC	x10 <sup>9</sup> /L	21.0	20.8	21.0	21.0	21.0	20.5	21.0	21.0	2.0
RBC	x10 <sup>12</sup> /L	5.69	5.65	5.65	5.52	5.45	5.66	5.45	5.60	0.35
Hgb	g/dL	19.0	19.6	19.6	18.7	18.3	18.3	18.5	17.8	1.0
Hct	%	53.5	52.0	52.0	51.5	51.5	52.0	51.8	55.4	5.5
MCV	fL	94.0	92.0	92.0	93.2	94.5	91.8	95.0	99.0	7.0
MCH	pg	33.4	34.7	34.7	33.8	33.5	32.3	34.0	31.7	3.0
MCHC	g/dL	35.5	38.0	38.0	36.5	35.5	35.2	35.7	32.1	4.0
RDW-CV	%	14.0	13.9	13.9	13.0	13.0	14.5	15.5	16.0	5.0
PLT	x10 <sup>9</sup> /L	615	590	615	580	570	618	580	610	75
MPV	fL	11.9	12.0	12.0	11.9	10.2	10.8	8.0	11.9	3.0

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

LOW CONTROL		DANAM DATACELL 16/18	ABX PENTRA60 60C,120	PENTRA 80, 80XL	BACKER 9110PLUS	ORPHEE MYTHIC22 22AL	ORPHEE MYTHIC60	
LOT 04-2212 EXP: 2023-03-06								
Parameters		Mean	Mean	Mean	Mean	Mean	Mean	± Range
WBC	x10 <sup>9</sup> /L	3.7	3.9	3.9	3.9	2.3	2.8	0.8
RBC	x10 <sup>12</sup> /L	3.10	3.15	3.15	3.12	3.05	3.08	0.20
Hgb	g/dL	8.4	8.6	8.6	8.5	8.9	9.4	0.5
Hct	%	23.5	24.2	24.2	24.0	23.7	23.5	3.0
MCV	fL	75.8	76.8	76.8	77.0	77.7	76.3	7.0
MCH	pg	27.0	27.3	27.3	27.2	29.1	30.5	3.0
MCHC	g/dL	35.7	35.5	35.5	35.4	37.5	40.0	3.0
RDW-CV	%	15.0	18.0	18.0	15.0	16.5	16.0	4.5
PLT	x10 <sup>9</sup> /L	88	88	88	88	105	95	30
MPV	fL	10.5	11.8	11.8	10.5	11.8	11.8	3.0
NORMAL CONTROL		DANAM DATACELL 16/18	ABX PENTRA60 60C,120	PENTRA 80, 80XL	BACKER 9110PLUS	ORPHEE MYTHIC22 22AL	ORPHEE MYTHIC60	
LOT 04-2212 EXP: 2023-03-06								
Parameters		Mean	Mean	Mean	Mean	Mean	Mean	± Range
WBC	x10 <sup>9</sup> /L	7.5	7.4	7.4	7.4	4.4	5.4	1.5
RBC	x10 <sup>12</sup> /L	4.23	4.18	4.18	4.25	4.22	4.20	0.25
Hgb	g/dL	12.7	12.5	12.5	12.8	12.6	12.8	0.8
Hct	%	34.2	33.8	33.8	34.9	34.6	34.5	3.0
MCV	fL	80.3	80.8	80.8	80.5	82.0	82.1	7.0
MCH	pg	29.1	30.0	30.0	29.3	29.8	30.4	3.0
MCHC	g/dL	37.1	37.0	37.0	36.6	36.4	37.1	4.0
RDW-CV	%	13.0	14.5	14.5	13.0	14.5	14.0	4.5
PLT	x10 <sup>9</sup> /L	240	236	236	240	255	260	60
MPV	fL	9.5	12.5	12.5	9.5	12.5	12.5	3.0
HIGH CONTROL		DANAM DATACELL 16/18	ABX PENTRA60 60C,120	PENTRA 80, 80XL	BACKER 9110PLUS	ORPHEE MYTHIC22 22AL	ORPHEE MYTHIC60	
LOT 04-2212 EXP: 2023-03-06								
Parameters		Mean	Mean	Mean	Mean	Mean	Mean	± Range
WBC	x10 <sup>9</sup> /L	20.0	20.0	20.0	20.2	5.9	9.5	2.0
RBC	x10 <sup>12</sup> /L	5.43	5.40	5.40	5.47	5.42	5.38	0.35
Hgb	g/dL	19.0	18.5	18.5	18.8	17.7	17.8	1.0
Hct	%	48.0	48.0	48.0	48.3	50.0	50.0	4.0
MCV	fL	88.4	89.0	89.0	88.3	92.2	92.9	7.0
MCH	pg	35.0	34.2	34.2	34.3	32.6	33.0	3.0
MCHC	g/dL	39.5	38.5	38.5	39.0	35.4	35.6	4.0
RDW-CV	%	13.0	13.3	13.3	13.0	13.0	13.0	4.5
PLT	x10 <sup>9</sup> /L	580	550	550	565	550	595	75
MPV	fL	11.0	12.0	12.0	11.0	11.5	11.5	3.0

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