

# BC-5D

## HEMATOLOGY CONTROLS

CONTROL

## ASSAY VALUES AND EXPECTED RANGES

**LOT** BC2109B

2021-11-10

Instrument	Parameter	Low		Normal		High		+
		LOT	BC2109BL	LOT	BC2109BN	LOT	BC2109BH	
BC-5800,BC-5600	WBC $\times 10^9/L$	3.62	$\pm$ 0.50	7.79	$\pm$ 1.00	17.90	$\pm$ 2.50	
QC Mode	Neu# $\times 10^9/L$	1.81	$\pm$ 0.33	4.25	$\pm$ 0.71	11.28	$\pm$ 1.62	
	Lym# $\times 10^9/L$	1.38	$\pm$ 0.33	2.30	$\pm$ 0.63	3.35	$\pm$ 1.44	
	Mon# $\times 10^9/L$	0.22	$\pm$ 0.18	0.59	$\pm$ 0.47	1.34	$\pm$ 1.08	
	Eos# $\times 10^9/L$	0.17	$\pm$ 0.15	0.58	$\pm$ 0.47	1.75	$\pm$ 1.43	
	Bas# $\times 10^9/L$	0.04	$\pm$ 0.04	0.08	$\pm$ 0.08	0.18	$\pm$ 0.18	
	Neu%	50.1	$\pm$ 9.0	54.5	$\pm$ 9.0	63.0	$\pm$ 9.0	
	Lym%	38.1	$\pm$ 9.0	29.5	$\pm$ 8.0	18.7	$\pm$ 8.0	
	Mon%	6.2	$\pm$ 5.0	7.6	$\pm$ 6.0	7.5	$\pm$ 6.0	
	Eos%	4.6	$\pm$ 4.0	7.4	$\pm$ 6.0	9.8	$\pm$ 8.0	
	Bas%	1.0	$\pm$ 1.0	1.0	$\pm$ 1.0	1.0	$\pm$ 1.0	
	RBC $\times 10^{12}/L$	2.12	$\pm$ 0.18	4.19	$\pm$ 0.24	5.06	$\pm$ 0.30	
	HGB g/L	58	$\pm$ 4	133	$\pm$ 6	171	$\pm$ 8	
	HCT %	17.6	$\pm$ 1.5	40.2	$\pm$ 2.0	52.2	$\pm$ 2.4	
	MCV fL	83.1	$\pm$ 5.0	95.9	$\pm$ 5.0	103.2	$\pm$ 5.0	
	MCH pg	27.4	$\pm$ 2.5	31.7	$\pm$ 2.5	33.8	$\pm$ 2.5	
	MCHC g/L	329	$\pm$ 30	331	$\pm$ 30	327	$\pm$ 30	
	RDW-CV %	16.0	$\pm$ 3.0	14.4	$\pm$ 3.0	13.7	$\pm$ 3.0	
	RDW-SD fL	48.2	$\pm$ 10.0	51.4	$\pm$ 10.0	53.0	$\pm$ 10.0	
	PLT $\times 10^9/L$	49	$\pm$ 20	254	$\pm$ 40	500	$\pm$ 60	
	MPV fL	9.3	$\pm$ 3.0	10.5	$\pm$ 3.0	10.1	$\pm$ 3.0	
	PCT %*	0.046	$\pm$ 0.046	0.267	$\pm$ 0.100	0.505	$\pm$ 0.200	
	PDW*	16.0	$\pm$ 3.0	16.5	$\pm$ 3.0	16.4	$\pm$ 3.0	
	P-LCC $\times 10^9/L$	16	$\pm$ 15	106	$\pm$ 25	183	$\pm$ 35	
	P-LCR %	31.9	$\pm$ 10.0	41.8	$\pm$ 10.0	36.6	$\pm$ 10.0	
BC-5390	WBC $\times 10^9/L$	3.30	$\pm$ 0.50	7.55	$\pm$ 1.00	17.10	$\pm$ 2.50	
QC Mode	Neu# $\times 10^9/L$	1.75	$\pm$ 0.30	4.27	$\pm$ 0.68	10.94	$\pm$ 1.54	
	Lym# $\times 10^9/L$	1.16	$\pm$ 0.30	2.08	$\pm$ 0.69	2.99	$\pm$ 1.20	
	Mon# $\times 10^9/L$	0.23	$\pm$ 0.20	0.57	$\pm$ 0.46	1.20	$\pm$ 1.03	
	Eos# $\times 10^9/L$	0.17	$\pm$ 0.14	0.64	$\pm$ 0.53	1.97	$\pm$ 1.55	
	Bas# $\times 10^9/L$	0.79	$\pm$ 0.33	2.06	$\pm$ 0.76	5.30	$\pm$ 1.71	
	Neu%	53.0	$\pm$ 9.0	56.5	$\pm$ 9.0	64.0	$\pm$ 9.0	
	Lym%	35.0	$\pm$ 9.0	27.5	$\pm$ 9.0	17.5	$\pm$ 7.0	
	Mon%	7.0	$\pm$ 6.0	7.5	$\pm$ 6.0	7.0	$\pm$ 6.0	
	Eos%	5.0	$\pm$ 4.0	8.5	$\pm$ 7.0	11.5	$\pm$ 9.0	
	Bas%	24.0	$\pm$ 10.0	27.3	$\pm$ 10.0	31.0	$\pm$ 10.0	
	RBC $\times 10^{12}/L$	2.03	$\pm$ 0.18	4.15	$\pm$ 0.24	5.04	$\pm$ 0.30	
	HGB g/L	52	$\pm$ 4	123	$\pm$ 6	158	$\pm$ 8	
	HCT %	16.5	$\pm$ 1.5	38.8	$\pm$ 2.0	50.7	$\pm$ 2.4	
	MCV fL	81.5	$\pm$ 5.0	93.5	$\pm$ 5.0	100.5	$\pm$ 5.0	
	MCH pg	25.6	$\pm$ 2.5	29.6	$\pm$ 2.5	31.3	$\pm$ 2.5	
	MCHC g/L	314	$\pm$ 30	317	$\pm$ 30	312	$\pm$ 30	
	RDW-CV %	15.5	$\pm$ 3.0	14.0	$\pm$ 3.0	13.5	$\pm$ 3.0	
	RDW-SD fL	49.0	$\pm$ 8.0	50.0	$\pm$ 8.0	50.5	$\pm$ 8.0	
	PLT $\times 10^9/L$	49	$\pm$ 20	252	$\pm$ 40	493	$\pm$ 60	
	MPV fL	12.4	$\pm$ 3.0	13.4	$\pm$ 3.0	12.8	$\pm$ 3.0	

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# BC-5D

## HEMATOLOGY CONTROLS

CONTROL

## ASSAY VALUES AND EXPECTED RANGES

**LOT**  


**BC2109B**  
2021-11-10

<b>Instrument</b>	<b>Parameter</b>	<b>Low</b>		<b>Normal</b>		<b>High</b>		<b>++</b>
		<b>LOT</b>	<b>BC2109BL</b>	<b>LOT</b>	<b>BC2109BN</b>	<b>LOT</b>	<b>BC2109BH</b>	
<b>BC-5390 CRP</b>	WBC $\times 10^9/L$	3.41	$\pm$ 0.50	7.51	$\pm$ 1.00	17.22	$\pm$ 2.50	
<b>QC Mode</b>	Neu# $\times 10^9/L$	1.80	$\pm$ 0.31	4.23	$\pm$ 0.68	11.07	$\pm$ 1.55	
	Lym# $\times 10^9/L$	1.25	$\pm$ 0.31	2.13	$\pm$ 0.60	3.05	$\pm$ 1.38	
	Mon# $\times 10^9/L$	0.18	$\pm$ 0.17	0.50	$\pm$ 0.45	1.15	$\pm$ 1.03	
	Eos# $\times 10^9/L$	0.18	$\pm$ 0.17	0.65	$\pm$ 0.53	1.95	$\pm$ 1.39	
	Bas# $\times 10^9/L$	0.87	$\pm$ 0.35	2.07	$\pm$ 0.76	5.36	$\pm$ 1.73	
	Neu%	52.7	$\pm$ 9.0	56.3	$\pm$ 9.0	64.3	$\pm$ 9.0	
	Lym%	36.8	$\pm$ 9.0	28.4	$\pm$ 8.0	17.7	$\pm$ 8.0	
	Mon%	5.3	$\pm$ 5.0	6.7	$\pm$ 6.0	6.7	$\pm$ 6.0	
	Eos%	5.2	$\pm$ 5.0	8.6	$\pm$ 7.0	11.3	$\pm$ 8.0	
	Bas%	25.5	$\pm$ 10.0	27.5	$\pm$ 10.0	31.1	$\pm$ 10.0	
	RBC $\times 10^{12}/L$	2.07	$\pm$ 0.18	4.16	$\pm$ 0.24	5.08	$\pm$ 0.30	
	HGB g/L	53	$\pm$ 4	122	$\pm$ 6	157	$\pm$ 8	
	HCT %	16.8	$\pm$ 1.5	39.1	$\pm$ 2.0	51.4	$\pm$ 2.4	
	MCV fL	81.0	$\pm$ 5.0	93.9	$\pm$ 5.0	101.2	$\pm$ 5.0	
	MCH pg	25.6	$\pm$ 2.5	29.3	$\pm$ 2.5	30.9	$\pm$ 2.5	
	MCHC g/L	316	$\pm$ 30	312	$\pm$ 30	305	$\pm$ 30	
	RDW-CV %	16.3	$\pm$ 3.0	14.9	$\pm$ 3.0	14.4	$\pm$ 3.0	
	RDW-SD fL	46.1	$\pm$ 8.0	49.2	$\pm$ 8.0	51.0	$\pm$ 8.0	
	PLT $\times 10^9/L$	45	$\pm$ 20	252	$\pm$ 40	511	$\pm$ 60	
	MPV fL	10.4	$\pm$ 3.0	11.3	$\pm$ 3.0	10.7	$\pm$ 3.0	
	PCT %*	0.047	$\pm$ 0.047	0.285	$\pm$ 0.100	0.547	$\pm$ 0.200	
	PDW*	15.6	$\pm$ 3.0	16.5	$\pm$ 3.0	16.6	$\pm$ 3.0	
	P-LCC $\times 10^9/L$	13	$\pm$ 13	91	$\pm$ 25	161	$\pm$ 35	
	P-LCR %	28.6	$\pm$ 10.0	36.3	$\pm$ 10.0	31.6	$\pm$ 10.0	
<b>BC-5300, BC-5100</b>	WBC $\times 10^9/L$	3.28	$\pm$ 0.50	7.30	$\pm$ 1.00	16.90	$\pm$ 2.50	
<b>BC-5380, BC-5180</b>	Neu# $\times 10^9/L$	1.74	$\pm$ 0.30	4.16	$\pm$ 0.66	10.99	$\pm$ 1.53	
<b>QC Mode</b>	Lym# $\times 10^9/L$	1.24	$\pm$ 0.30	2.13	$\pm$ 0.59	3.04	$\pm$ 1.36	
(Software version lower than 1.24.00.16860)	Mon# $\times 10^9/L$	0.10	$\pm$ 0.10	0.35	$\pm$ 0.30	0.85	$\pm$ 0.68	
	Eos# $\times 10^9/L$	0.20	$\pm$ 0.17	0.66	$\pm$ 0.52	2.03	$\pm$ 1.53	
	Bas# $\times 10^9/L$	1.86	$\pm$ 0.33	4.86	$\pm$ 0.73	13.30	$\pm$ 1.69	
	Neu%	53.2	$\pm$ 9.0	57.0	$\pm$ 9.0	65.0	$\pm$ 9.0	
	Lym%	37.8	$\pm$ 9.0	29.2	$\pm$ 8.0	18.0	$\pm$ 8.0	
	Mon%	3.0	$\pm$ 3.0	4.8	$\pm$ 4.0	5.0	$\pm$ 4.0	
	Eos%	6.0	$\pm$ 5.0	9.0	$\pm$ 7.0	12.0	$\pm$ 9.0	
	Bas%	56.8	$\pm$ 10.0	66.6	$\pm$ 10.0	78.7	$\pm$ 10.0	
	RBC $\times 10^{12}/L$	2.04	$\pm$ 0.18	4.13	$\pm$ 0.24	5.00	$\pm$ 0.30	
	HGB g/L	54	$\pm$ 4	123	$\pm$ 6	158	$\pm$ 8	
	HCT %	17.4	$\pm$ 1.5	40.4	$\pm$ 2.0	52.9	$\pm$ 2.4	
	MCV fL	85.5	$\pm$ 5.0	97.8	$\pm$ 5.0	105.8	$\pm$ 5.0	
	MCH pg	26.5	$\pm$ 2.5	29.8	$\pm$ 2.5	31.6	$\pm$ 2.5	
	MCHC g/L	310	$\pm$ 30	305	$\pm$ 30	299	$\pm$ 30	
	RDW-CV %	15.8	$\pm$ 3.0	14.0	$\pm$ 3.0	13.5	$\pm$ 3.0	
	RDW-SD fL	58.5	$\pm$ 8.0	61.8	$\pm$ 8.0	62.5	$\pm$ 8.0	
	PLT $\times 10^9/L$	45	$\pm$ 20	237	$\pm$ 40	471	$\pm$ 60	
	MPV fL	10.0	$\pm$ 3.0	10.7	$\pm$ 3.0	10.2	$\pm$ 3.0	
	PCT %*	0.044	$\pm$ 0.044	0.253	$\pm$ 0.100	0.478	$\pm$ 0.200	
	PDW*	15.7	$\pm$ 3.0	16.5	$\pm$ 3.0	16.5	$\pm$ 3.0	

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# BC-5D

## HEMATOLOGY CONTROLS

CONTROL

## ASSAY VALUES AND EXPECTED RANGES

LOT

BC2109B



2021-11-10

Instrument	Parameter	Low		Normal		High		+++
		LOT	BC2109BL	LOT	BC2109BN	LOT	BC2109BH	
<b>BC-5300,BC-5100</b>	WBC $\times 10^9/L$	3.29	$\pm$ 0.50	7.42	$\pm$ 1.00	16.89	$\pm$ 2.50	
<b>BC-5380,BC-5180</b>	Neu# $\times 10^9/L$	1.77	$\pm$ 0.30	4.24	$\pm$ 0.67	10.94	$\pm$ 1.52	
<b>QC Mode</b> (Software version 1.24.00.16860 or higher)	Lym# $\times 10^9/L$	1.21	$\pm$ 0.30	2.12	$\pm$ 0.60	3.04	$\pm$ 1.36	
	Mon# $\times 10^9/L$	0.11	$\pm$ 0.10	0.37	$\pm$ 0.30	0.84	$\pm$ 0.68	
	Eos# $\times 10^9/L$	0.20	$\pm$ 0.17	0.68	$\pm$ 0.52	2.06	$\pm$ 1.52	
	Bas# $\times 10^9/L$	1.88	$\pm$ 0.33	4.99	$\pm$ 0.75	13.34	$\pm$ 1.69	
	Neu%	53.8	$\pm$ 9.0	57.2	$\pm$ 9.0	64.8	$\pm$ 9.0	
	Lym%	36.8	$\pm$ 9.0	28.6	$\pm$ 8.0	18.0	$\pm$ 8.0	
	Mon%	3.4	$\pm$ 3.0	5.0	$\pm$ 4.0	5.0	$\pm$ 4.0	
	Eos%	6.0	$\pm$ 5.0	9.2	$\pm$ 7.0	12.2	$\pm$ 9.0	
	Bas%	57.1	$\pm$ 10.0	67.2	$\pm$ 10.0	79.0	$\pm$ 10.0	
	RBC $\times 10^{12}/L$	2.04	$\pm$ 0.18	4.12	$\pm$ 0.24	4.96	$\pm$ 0.30	
	HGB g/L	54	$\pm$ 4	123	$\pm$ 6	158	$\pm$ 8	
	HCT %	17.0	$\pm$ 1.5	39.7	$\pm$ 2.0	51.5	$\pm$ 2.4	
	MCV fL	83.2	$\pm$ 5.0	96.3	$\pm$ 5.0	103.8	$\pm$ 5.0	
	MCH pg	26.5	$\pm$ 2.5	29.9	$\pm$ 2.5	31.9	$\pm$ 2.5	
	MCHC g/L	318	$\pm$ 30	310	$\pm$ 30	307	$\pm$ 30	
	RDW-CV %	15.9	$\pm$ 3.0	14.5	$\pm$ 3.0	14.0	$\pm$ 3.0	
	RDW-SD fL	54.5	$\pm$ 8.0	58.0	$\pm$ 8.0	60.2	$\pm$ 8.0	
	PLT $\times 10^9/L$	45	$\pm$ 20	243	$\pm$ 40	481	$\pm$ 60	
	MPV fL	9.6	$\pm$ 3.0	10.7	$\pm$ 3.0	10.1	$\pm$ 3.0	
	PCT %*	0.043	$\pm$ 0.043	0.260	$\pm$ 0.100	0.486	$\pm$ 0.200	
	PDW*	15.7	$\pm$ 3.0	16.5	$\pm$ 3.0	16.6	$\pm$ 3.0	
<b>BC-5000,BC-5150,BC-5120</b>	WBC $\times 10^9/L$	3.38	$\pm$ 0.50	7.45	$\pm$ 1.00	17.03	$\pm$ 2.50	
<b>BC-5130,BC-5140,BC-5000VET</b>	Neu# $\times 10^9/L$	1.68	$\pm$ 0.41	4.01	$\pm$ 0.90	10.47	$\pm$ 2.05	
<b>QC Mode</b>	Lym# $\times 10^9/L$	1.25	$\pm$ 0.31	2.12	$\pm$ 0.60	2.90	$\pm$ 1.20	
	Mon# $\times 10^9/L$	0.26	$\pm$ 0.26	0.67	$\pm$ 0.67	1.53	$\pm$ 1.53	
	Eos# $\times 10^9/L$	0.16	$\pm$ 0.16	0.56	$\pm$ 0.56	1.81	$\pm$ 1.81	
	Bas# $\times 10^9/L$	0.03	$\pm$ 0.03	0.10	$\pm$ 0.10	0.32	$\pm$ 0.32	
	Neu%	49.8	$\pm$ 12.0	53.8	$\pm$ 12.0	61.5	$\pm$ 12.0	
	Lym%	37.0	$\pm$ 9.0	28.4	$\pm$ 8.0	17.0	$\pm$ 7.0	
	Mon%	7.6	$\pm$ 7.6	9.0	$\pm$ 9.0	9.0	$\pm$ 9.0	
	Eos%	4.7	$\pm$ 4.7	7.5	$\pm$ 7.5	10.6	$\pm$ 10.6	
	Bas%	0.9	$\pm$ 0.9	1.3	$\pm$ 1.3	1.9	$\pm$ 1.9	
	RBC $\times 10^{12}/L$	2.07	$\pm$ 0.18	4.21	$\pm$ 0.24	5.09	$\pm$ 0.30	
	HGB g/L	54	$\pm$ 4	126	$\pm$ 6	163	$\pm$ 8	
	HCT %	17.2	$\pm$ 1.5	39.7	$\pm$ 2.0	51.1	$\pm$ 2.4	
	MCV fL	83.2	$\pm$ 5.0	94.2	$\pm$ 5.0	100.4	$\pm$ 5.0	
	MCH pg	26.1	$\pm$ 2.5	29.9	$\pm$ 2.5	32.0	$\pm$ 2.5	
	MCHC g/L	314	$\pm$ 30	318	$\pm$ 30	319	$\pm$ 30	
	RDW-CV %	19.1	$\pm$ 3.0	17.1	$\pm$ 3.0	16.2	$\pm$ 3.0	
	RDW-SD fL	57.7	$\pm$ 8.0	59.0	$\pm$ 8.0	59.3	$\pm$ 8.0	
	PLT $\times 10^9/L$	48	$\pm$ 20	250	$\pm$ 40	506	$\pm$ 60	
	MPV fL	11.7	$\pm$ 3.0	12.8	$\pm$ 3.0	12.0	$\pm$ 3.0	
	PCT %*	0.056	$\pm$ 0.050	0.320	$\pm$ 0.100	0.607	$\pm$ 0.200	
	PDW*	15.3	$\pm$ 3.0	16.5	$\pm$ 3.0	16.8	$\pm$ 3.0	
	P-LCC $\times 10^9/L$ **	19	$\pm$ 15	114	$\pm$ 25	196	$\pm$ 35	
	P-LCR %**	39.3	$\pm$ 10.0	45.7	$\pm$ 10.0	38.8	$\pm$ 10.0	

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\*\* These parameters are not provided on BC-5000/BC-5000 Vet analyzers

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**BC-5D**  
**HEMATOLOGY CONTROLS**  
**CONTROL**

ASSAY VALUES AND EXPECTED RANGES

**LOT** BC2109B

2021-11-10

Instrument	Parameter	Low		Normal		High		++++
		LOT	BC2109BL	LOT	BC2109BN	LOT	BC2109BH	
BC-5300Vet,BC-5100Vet	WBC $\times 10^3/L$	3.25	$\pm$ 0.50	7.35	$\pm$ 1.00	17.10	$\pm$ 2.50	
QC Mode	Neu# $\times 10^9/L$	1.72	$\pm$ 0.30	4.23	$\pm$ 0.67	11.12	$\pm$ 1.54	
	Lym# $\times 10^9/L$	1.24	$\pm$ 0.30	2.13	$\pm$ 0.59	3.08	$\pm$ 1.37	
	Mon# $\times 10^9/L$	0.10	$\pm$ 0.10	0.33	$\pm$ 0.30	0.86	$\pm$ 0.69	
	Eos# $\times 10^9/L$	0.20	$\pm$ 0.17	0.66	$\pm$ 0.52	2.05	$\pm$ 1.54	
	Neu%	53.0	$\pm$ 9.0	57.5	$\pm$ 9.0	65.0	$\pm$ 9.0	
	Lym%	38.0	$\pm$ 9.0	29.0	$\pm$ 8.0	18.0	$\pm$ 8.0	
	Mon%	3.0	$\pm$ 3.0	4.5	$\pm$ 4.0	5.0	$\pm$ 4.0	
	Eos%	6.0	$\pm$ 5.0	9.0	$\pm$ 7.0	12.0	$\pm$ 9.0	
	RBC $\times 10^{12}/L$	2.02	$\pm$ 0.18	4.12	$\pm$ 0.24	4.99	$\pm$ 0.30	
	HGB g/L	53	$\pm$ 4	122	$\pm$ 6	158	$\pm$ 8	
	HCT %	17.4	$\pm$ 1.5	40.4	$\pm$ 2.0	52.9	$\pm$ 2.4	
	MCV fL	86.0	$\pm$ 5.0	98.0	$\pm$ 5.0	106.0	$\pm$ 5.0	
	MCH pg	26.2	$\pm$ 2.5	29.6	$\pm$ 2.5	31.7	$\pm$ 2.5	
	MCHC g/L	305	$\pm$ 30	302	$\pm$ 30	299	$\pm$ 30	
	RDW-CV %	16.0	$\pm$ 3.0	14.0	$\pm$ 3.0	13.5	$\pm$ 3.0	
	RDW-SD fL	59.0	$\pm$ 8.0	62.0	$\pm$ 8.0	63.0	$\pm$ 8.0	
	PLT $\times 10^9/L$	44	$\pm$ 20	234	$\pm$ 40	469	$\pm$ 60	
	MPV fL	10.6	$\pm$ 3.0	11.4	$\pm$ 3.0	10.8	$\pm$ 3.0	
	PCT %*	0.046	$\pm$ 0.046	0.265	$\pm$ 0.100	0.505	$\pm$ 0.200	
	PDW*	15.6	$\pm$ 3.0	16.5	$\pm$ 3.0	16.5	$\pm$ 3.0	

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AS904-009 Rev. 11/19