

Vcheck H6

Top-Tier Analyzer Offering 6-Diff and Reticulocyte Analysis



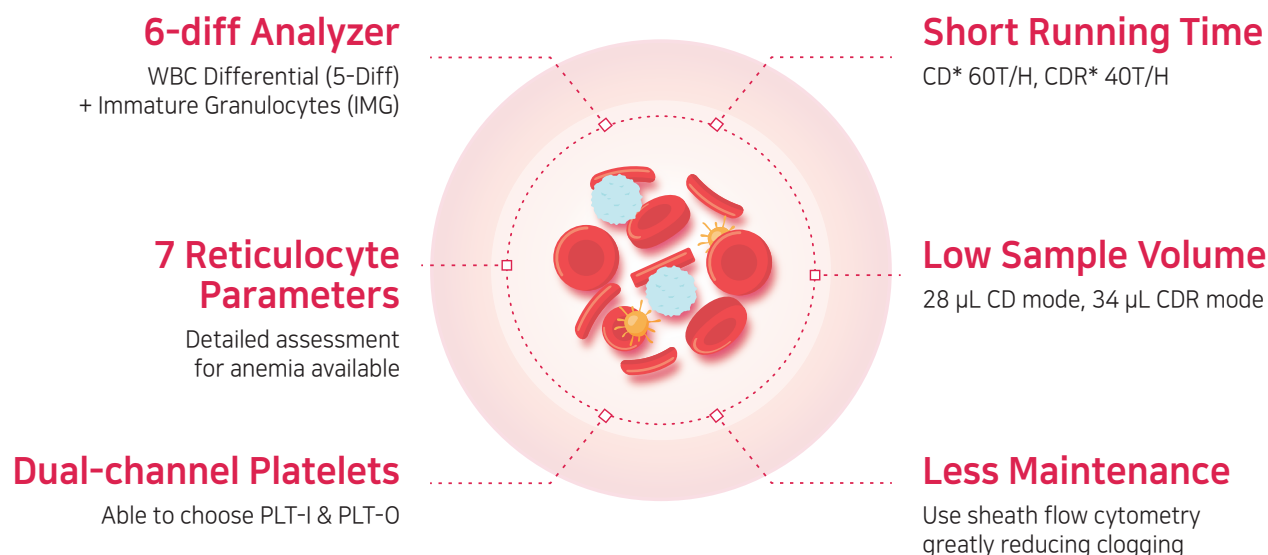
A **Complete Blood Count (CBC)** is a fundamental component of diagnostic evaluations, playing a crucial role in both routine health screenings and comprehensive assessments of sick patients. Even minor deviations in CBC results can provide early clues to underlying health conditions, often before clinical symptoms emerge or abnormalities appear in other lab tests. By detecting these subtle changes, **CBC testing enables early diagnosis and proactive treatment**, helping veterinarians make informed decisions to ensure optimal patient care.

The **Vcheck H6 Auto Hematology Analyzer** delivers precise 6-Diff and reticulocyte analysis with exceptional efficiency. With just 34 μ L of blood, it provides fast and reliable results, leveraging three advanced technologies: multi-angle laser, flow cytometry, and fluorescence detection. Designed to enhance diagnostic accuracy, the Vcheck H6 is a powerful tool for comprehensive hematology analysis, ensuring both efficiency and reliability in veterinary practice.

BIONOTE

Why Choose Vcheck H6 Analyzer?

Accuracy, Speed, and Innovation



* CD mode: CBC+DIFF
* CDR mode: CBC+DIFF+RET

Other Features of Vcheck H6

Designed for Efficiency, Engineered for Excellence



User-Friendly Operation

- 12-inch big touch screen
- Exclusive software for veterinary use

Inclusive Design

- No barriers around the needle
- Easy access for both left- and right-handed users

Large Storage Capacity

- Up to 80,000 samples

Versatile Connectivity

- PMS integration, Wi-Fi support
- 4 USB ports, 1 network port

The Science Behind Vcheck H6

Advanced Technology Powering Vcheck H6

6-diff of WBC

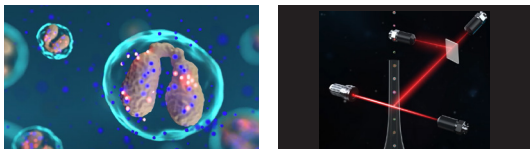
Reticulocyte

RBC & Platelet

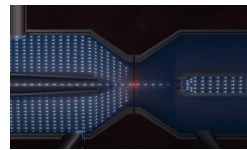
Hemoglobin

Technology

Fluorescence staining
+ Flow Cytometry
+ Multi-angle laser

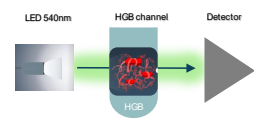


Sheath Flow
Impedance

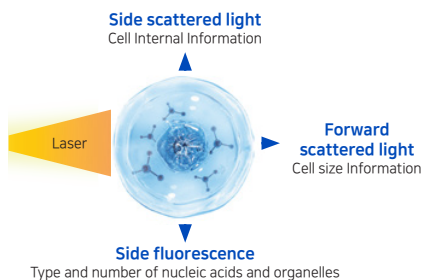


Colorimetry

[The use of cyanide-free lyse for enhanced dissolving power and stability]

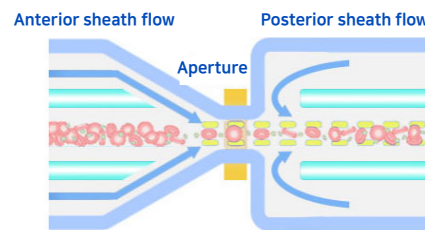


Multi-Angle Laser for Enhanced Cell Differentiation



By providing detailed insights into Cellular composition, this technology enables precise WBC differentiation and reticulocyte analysis.

Sheath Flow Impedance for Efficient Analysis



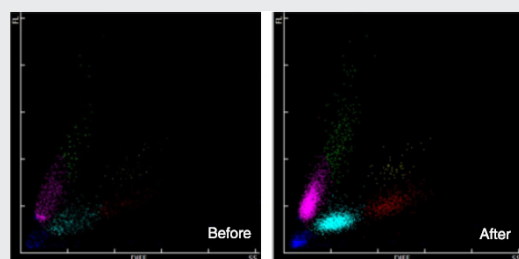
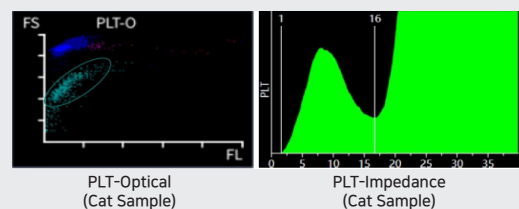
A stable sheath fluid system ensures single-cell passage for precise measurement while reducing clogging and maintenance needs, enhancing overall efficiency.

Dual-Channel PLT for Superior Platelet Analysis

PLT-O (optical platelet) results eliminates interference from fragmented RBCs, small RBCs and large platelets, ensuring more accurate and reliable platelet counts.

Reliable WBC Multiplication for Low Counts

For low WBC count, the analyzer intelligently applies automatic triplication for precise measurement.



Vcheck H6 Testing Workflow

From Sample to Results – A Seamless Testing Process



What Vcheck H6 Measures

Comprehensive Testing for Complete Blood Analysis – **35 parameters for Whole blood**

RBC parameters

RBC

HCT

MCV

MCH

MCHC

RDW-CV

RDW-SD

PLT parameters

PLT

MPV

PDW

PCT

P_LCR

P_LCC

IPF
(Immature platelet fraction)

WBC parameters

WBC

IMG#

IMG%

NEU#

LYM#

MON#

EOS#

BASO#

NEU%

LYM%

MON%

EOS%

BASO%

RET parameters

RET#

RET%

IRF
(Immature reticulocyte fraction)

HFR
(High fluorescent reticulocyte fraction)

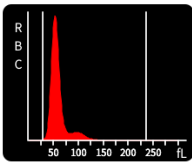
MFP
(Medium fluorescent reticulocyte fraction)

LFR
(Low fluorescent reticulocyte fraction)

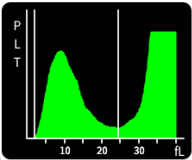
RHE
(Reticulocyte hemoglobin expression)

HGB parameters

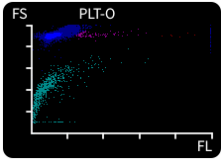
HGB



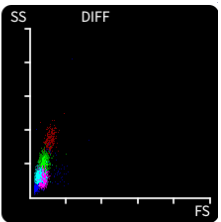
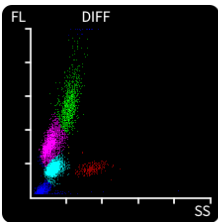
RBC histogram



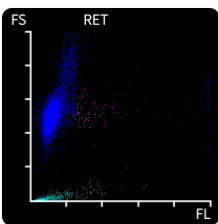
PLT histogram (PLT-I)



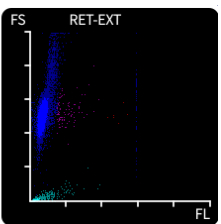
PLT Scattergram (PLT-O)



DIFF Scattergram (2D X 2)



RET Scattergram



RET 2D extended scatter diagram

Performance of Vcheck H6

Linearity

The linearity evaluation results for dogs and cats demonstrated excellent linearity for all parameters, with an R² value of 0.98 or higher.

Carryover

After measuring high-concentration samples three times followed by low-concentration samples three times, the residual carryover between samples demonstrated excellent results, with values below 0.5 for all parameters.

Precision

When measuring samples from dogs and cats 20 times repeatedly, most parameters demonstrated excellent reproducibility with a CV within 10%. Notably, reticulocyte counts exhibited high precision, with a CV of 7.72% in dogs and 3.28% in cats.

Concordance

When comparing measurements using 100 samples each from dogs and cats with the Siemens ADVIA 2120i analyzer, both species demonstrated excellent or very good concordance for the main parameters (Table 1, Figure 1).

Table 1. Concordance Assessment Results

Parameter	<i>r_s</i>	
	Dog	Cat
WBC	0.99	0.99
Neut	0.98	0.99
Lym	0.61	0.89
Mono	0.23	0.98
Eos	0.97	0.90
RBC	0.99	0.99
Hgb	0.96	0.99
Hct	0.99	0.99
MCV	0.88	0.87
MCH	0.83	0.95
MCHC	0.60	0.54
Retic#	0.91	0.88
PLT	0.92	0.71

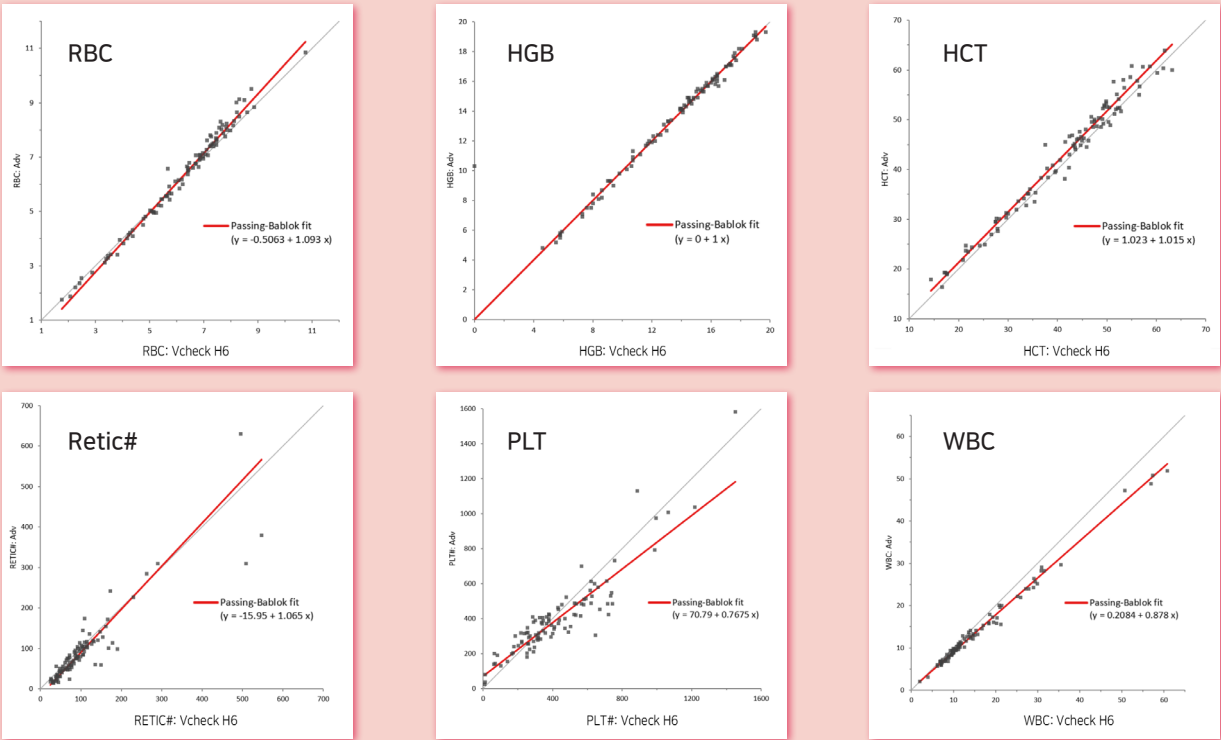


Figure 1. Correlation Test Results in Dogs

Vcheck H6 Specifications

Key Technical Details

Principles	- Fluorescence staining + Flow Cytometry + Multi-angle laser for WBC differential and Reticulocyte - Sheath flow impedance method for RBC/PLT test - Cyanide free colorimetry for HGB test
Parameters	35 Reportable parameters (whole blood) WBC, Lym(#,%), Mon(#,%), Neu(#,%), Bas(#,%), Eos(#,%), IMG(#,%), RBC, HGB, HCT, MCV, MCH, MCHC, RDW-CV, RDW-SD, PLT, MPV, PDW, PCT, P-LCR, P-LCC, RET(#,%), IRF, HFR, MFR, LFR, IPF, RET-HE 6 Reportable plots (whole blood) 12 Research parameters (whole blood) PLT-I, WBC-O, WBC-D, NRBC(#,%), NLR, PLR, IPF#, RPI, MRV, RBC-O, PLT-O 2 Research plots (whole blood)
Sample mode	Whole blood and pre-diluted modes
Sample volume	Whole Blood : CD Mode ≤ 28 µL, CDR mode ≤ 34 µL
Throughput	CD Mode : 60 samples per hour CDR Mode : 40 samples per hour
Reagent	6 types (2 Diluent (DR, DS), 2 Lyse (LD, LH), 2 Florescence dye (FR, FD))
Display	12-inch touch screen
Printout	USB Printer (A4, A5(Landscape/Portrait), PDF)
Storage	Up to 80,000 samples
Interface	RS232 serial port, network port, HL7 protocol, Support LIS/HIS
Power requirement	100-240V, 50/60Hz (Optimal : AC 220V)
Weight	31 Kg



*Under development

Category	Product No.	Product Name	Storage temp.	Shelf life	Packing Unit
Analyzer	VC7809EA	Vcheck H6	-	-	1 EA
Reagent	VC7812BQ	Vcheck H H6 DR Diluent	2-40 °C	24 months (after open 90 days)	200 ml
	VC7813FW	Vcheck H H6 DS Diluent	2-40 °C	24 months (after open 60 days)	9 L
	VC7814BQ	Vcheck H H6 LD Lyse	2-40 °C	24 months (after open 60 days)	200 ml
	VC7815BQ	Vcheck H H6 LH Lyse	2-40 °C	24 months (after open 60 days)	100 ml
	VC7816BQ	Vcheck H H6 FR Fluorescent Dye	2-30 °C	12 months (after open 90 days)	3.5 ml
	VC7817BQ	Vcheck H H6 FD Fluorescent Dye	2-30 °C	12 months (after open 90 days)	4 ml
	VC7811BU	Vcheck H H6 Reagent Pack (Non-Retic)	consist of DS Diluent, LD Lyse, LH Lyse, FD Fluorescent dye		
Control	VC7810BV	Vcheck H H6 Control	2-8 °C	3 months (after open 8 days)	6 x 3 ml (Low, Medium, High)
Calibrator	VC7809BS	Vcheck H H6 Calibrator	2-8 °C	3 months (after open 1 days)	2 x 3 ml
Probe cleaner	VC7808BQ	Vcheck H Probe cleaner	2-40 °C	12 months (after open 60 days)	100 ml



Vertrieb:

bestbion dx GmbH I An der Hasenkaule 10 (Gebäude 9) I 50354 Hürth I Deutschland
Fon: +49 2234 98795-0 I Fax: +49 2234 98795-29 I www.bestbion.com

rev.1