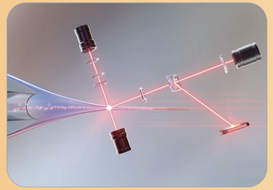
Multi Technologies Revealing More Information About Blood Cells

Fluorescent Staining method

H90X Vet provides on-board dedicated channel with specific fluorescent dye that stains nucleic acids with cells, guaranteeing efficiency in reporting reticulocytes.

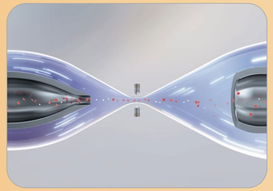
Fluorescent flow cytometry

Cells treated with fluorescence staining generate SSC and FSC, as well as the SFL. Compared to traditional laser methodology, it improves the accuracy of WBC differentiation.



Sheath Flow Impedance Method

Based on the DC impedance, sheath flow is utilized to encapsulate RBC and PLT for counting, reducing the inaccuracies associated with conventional DC impedance method.



Specification

Parameters

33 reportable parameters: WBC, LYM%, LYM#, MON%, MON#, NEU%, NEU#, EOS%, EOS#, BAS%, BAS#, RBC, HGB, HCT, MCV, RDW-CV, RDW-SD, MCH, MCHC, PLT, MPV, PCT, PDW, IPF, P-LCR, P-LCC, **RET#, RET%, RHE, IRF, LFR, MFR, HFR**
13 research parameters: WBC-D, RBC-O, PLT-O, PLT-I, RPI, IPF#, WBC-O, MRV, NRBC#, NRBC%, PDW-SD, NLR, PLR
3 histograms: RBC, PLT, WBC
2 3D scattergrams: DIFF, RET
8 2D scattergrams: PLT-O, RET-EXT, DIFF*3, RET*3

Performance

Parameters	Linearity Range	Precision (CV %)
WBC (10^9/L)	0.0-500.0	≤3.0% (3.50-4.50) ≤2.5% (≥4.51)
RBC(10^{12}/L)	0.0-17.00	≤1.5% (≥3.5)
HGB(g/L)	0-260	≤1.0% (110-180)
PLT(10^9/L)	0-5000	≤4.0% (≥100)
RET%	0-30.0%	≤15.0%(RBC ≥ 3*10^{12}/L, RET% 1.0%-4.0%)
RET(10^{12}/L)	0.00-0.80	≤15.0%(RBC ≥ 3*10^{12}/L, RET% 1.0%-4.0%)
HCT(%)	0-75%	
MCV(fL)		≤1.0% (80-100)

Principles

Semi-conductor laser flow cytometry and fluorescent staining analysis for WBC, DIFF, and RET counting
Sheath flow impedance method for RBC, PLT counting
Cyanide-free reagent for HGB with colorimetric method

Sample Volume

Whole blood mode:
CBC+DIFF: 28 μL; CBC+DIFF+RET: 34 μL
Pre-diluted mode: 20 μL

Reagent

VD310 Veterinary Diluent 10L/20L
VD93R Veterinary Diluent 200mL
VL91D, VL90H Veterinary Lyse 200mL
VF91D Veterinary Dye 12mL/6mL
VF93R Veterinary Dye 6mL/4mL
VC600 Cleaner 50mL

Operating Environment

Temperature: 10°C-35°C
Humidity: 30%RH-85%RH (No condensing)
Air pressure: 70kPa-106kPa

Supportable Species

Dog, Cat, Horse, Cow, Sheep, Goat

Throughput

CBC+DIFF: 60 t/h
CBC+DIFF+RET: 40 t/h

Interface

12.1 inch colorful touch screen

Control and Calibrator

VD-90D, VD-CAL PLUS

Data Storage Capacity

150,000 results including results and histograms

Dimension and Weight

540mm (D)×320mm (W)×480mm(H)
Weight: 40kg

EDAN
A world of potential

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Illuminate RET Potential with Fluorescence Technology

H90X Vet 6-Part Veterinary Hematology Analyzer

ENG-AnimalCare-H90X Vet
V1.1.20241106

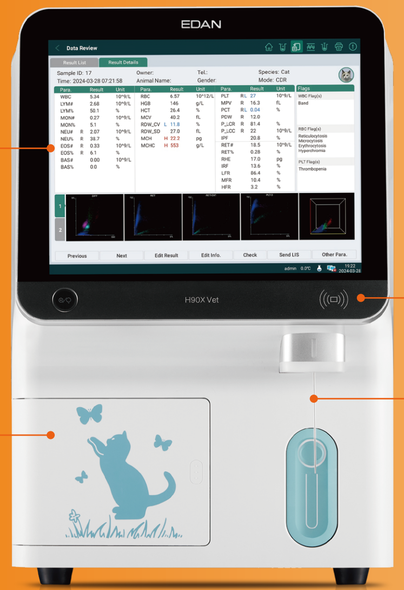
EDAN animal care

H90X Vet

6-Part Veterinary Hematology Analyzer

With the concept of animal health becoming more and more profound, people pay more attention to the health of pets, and veterinarians also have higher requirements for diagnostic equipment. Veterinary hematology analyzers, as basic laboratory equipment, bear greater responsibility.

Considering the characteristics of veterinary situations, EDAN adheres to technological innovation and is oriented towards customer needs. Now, we have developed a new generation of veterinary hematology analyzers to provide better diagnostic solutions.



Intuitive Operation

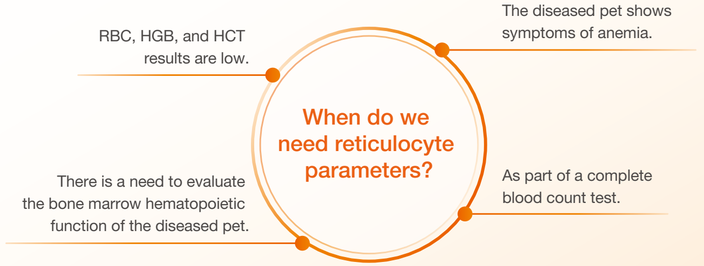
RFID Recognition

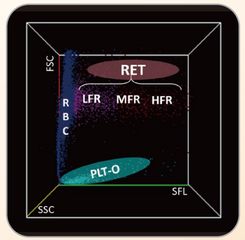
Convenient Functionality

Individual Hatch Design

Reticulocyte: A Diagnosing Tool of Anemia-related Disease

Reticulocytes are immature red blood cells found in the peripheral blood and are an important indicator of the hematopoietic function of the bone marrow. The number of reticulocytes can help determine the type of anemia, such as hemolytic anemia and iron deficiency anemia. It can also be used as an indicator of the efficacy of anemia.





Reticulocyte Analysis

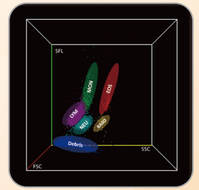
- 7 RET-related parameters mirroring more anemia information.
- Reticulocyte hemoglobin(RHE) is a sensitive indicator of iron utilization during the process of RBC generation.
- High Fluorescent Ratio(HFR) and Low Fluorescent Ratio(LFR) are used to distinguish different types of anemia.
- The important indicator reflecting hematopoietic function.

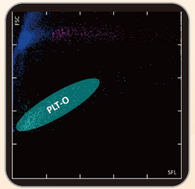
High Clinical Value Parameters, Calmly Facing Diagnosis

Scattergram is the most visual presentation of the blood test, where each dot represents a cell. Looking at the distribution of cells on the scatterplot helps veterinarians to quickly identify some abnormal cells as well as diseases.

WBC Differenation

Fluorescent staining counts classify animal leukocytes more accurately and, in combination with three-angle scatter plots, provide additional clinical significance.



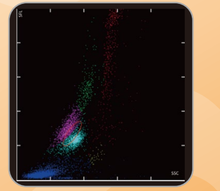


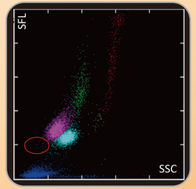
Fluorescent Optical Platelet*

Optical platelet count(PLT-O)* is a complementary parameter to impedance platelet, assisting in diagnosing when PLT count too low or interference are present.

BAND Flagging

BAND Flagging is of great significance for evaluating the degree of nflammation in animals.





NRBC*

Nucleated Red Blood Cell(NRBC)* can serve as a negative prognostic marker for evaluating RBC and bone marrow abnormalities, as well as severe diseases.