



TooToo MediTech Co., Ltd.

TT-BGA01

Vet Blood Gas Analyzer



- + 37 parameters
- + Microfluidic electrochemical technology
- + 3mins complete the calibration and testing
- + 150ul sample volume required
- + 8.9" LCD touch screen
- + Built-in barcode scanner, lithium battery and thermal printer

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Blood Gas Test Cartridge

37 parameters of blood gases, electrolytes and metabolites:

10 measured parameters: K⁺, Na⁺, Cl⁻, iCa²⁺, pH, pCO₂, pO₂, Glu, Lac, HCT.

27 calculated parameters: cH⁺(T), pH(T), pCO₂(T), pO₂(T), pO₂(A-a)(T), pO₂(a/A)(T), RI(T), pO₂(T)/ FiO₂, cH⁺, iCa²⁺(7.4), HCO₃⁻ act, HCO₃⁻ std, BE(ecf), BE(B), BB(B), AG, sO₂(est), tHb(est), TCO₂, pO₂(A-a), pO₂(a/A), RI, mOsm, pO₂ / FiO₂, AG(K⁺), pO₂(A), pO₂(A)(T).



Parameters

Parameter	Accuracy	Range	Precision
K ⁺	± 3.0%	2.0-9.0 mmol/L	≤ 1.5%
Na ⁺	± 3.0%	100-180 mmol/L	≤ 1.5%
Cl ⁻	± 3.0%	65-140 mmol/L	≤ 1.5%
iCa ²⁺	≥ 1.00 mmol/L, ± 5.0%; < 1.00 mmol/L, ± 0.05 mmol/L	0.25-2.50 mmol/l	≤ 1.5%
pH	± 0.04	6.500-8.000	≤ 0.02
pCO ₂	> 62.0 mmHg, ± 8.0%; < 62.0 mmHg, ± 5.0 mmHg	10.0-150.0 mmHg	≥ 62.0 mmHg, CV ≤ 4.0%; < 62.0 mmHg, SD ≤ 2.5 mmHg
pO ₂	≥ 50 mmHg, ± 15.0%; < 50 mmHg, ± 7.5 mmHg	10-700 mmHg	≤ 5.0%
Glu	≥ 4.0 mmol/L, ± 10.0%; < 4.0 mmol/L, ± 0.4 mmol/l	1.1-38.0 mmol/L	≥ 4.0 mmol/L CV ≤ 5.0%; < 4.0 mmol/L, SD ≤ 0.2 mmol/L
Lac	≥ 5.00 mmol/L, ± 12.0%; < 5.00 mmol/L, ± 0.6 mmol/L	0.50-20.00 mmol/L	≥ 5.00 mmol/L, CV ≤ 6.0%; < 5.00 mmol/L, SD ≤ 0.3 mmol/L
HCT	≥ 50% PCV, ± 6.0%; < 50% PCV, ± 3% PCV	10%-70% PCV	≥ 50% PCV, CV ≤ 3.0%; < 50% PCV, SD ≤ 1.5% PCV



Test parameters and indications



Animals experiencing long-term symptoms such as anorexia, vomiting, diarrhea, muscle weakness, bradycardia, ventricular hypertrophy, oliguria, anuria, polyuria, adrenal cortical dysfunction, renal failure, diabetic ketoacidosis, urethral obstruction, urinary retention, or frequent obstructive urination, as well as those using diuretics like furosemide, thiazides, spironolactone, or ACE inhibitors like enalapril, should have their blood potassium levels tested.



Animals with symptoms such as vomiting, diarrhea, polydipsia, polyuria, muscle weakness, abnormal behavior, restlessness, edema, pleural or abdominal effusion, dehydration, as well as those with diagnosed adrenal, renal, hepatic, or cardiac failure, prolonged fluid therapy, diuretic treatment, or not drinking water, should have their blood sodium levels tested.



Animals with symptoms such as vomiting, diarrhea, dehydration, polyuria, polydipsia, or acid-base imbalance should have their blood chloride levels tested.



Animals with symptoms such as lethargy, anorexia, vomiting, constipation, weakness, polydipsia, polyuria, facial itching, restlessness, muscle tremors or fasciculations, hind limb spasms, convulsions, sudden-onset illness, abnormal blood nitrogen levels, diffuse bone disease, or prolonged QT interval on an electrocardiogram should have their blood calcium levels tested.



There are two blood glucose indicators used for testing namely fasting blood glucose and 2-hour postprandial blood glucose.

These are used to assess diabetes, hypoglycemia, hyperglycemia, and endocrine disorders.



Blood lactate levels should be tested in animals experiencing shock, excessive exercise, metabolic myopathies (especially in Labrador Retrievers), metabolic acidosis, fluid therapy in shock, and in the diagnosis and prognosis of critically ill animals (such as those with gastric dilatation-volvulus, intestinal torsion, or intussusception).



Hematocrit (HCT) levels should be tested in animals experiencing anemia, dehydration, blood loss, bone marrow disorders, chronic diseases, or those undergoing surgery or trauma.

It is also useful in monitoring response to treatments like fluid therapy or transfusions.



The pH level indicates the acidity or alkalinity of the blood. In animals, pH is a critical indicator of metabolic and respiratory health. Measuring pH helps veterinarians understand the body's acid-base status and make informed decisions about treatment and management of various health conditions.



Partial pressure of carbon dioxide (pCO₂) indicates the amount of carbon dioxide dissolved in the blood. Testing pCO₂ in animals is recommended in the following situations: respiratory disorders, anesthesia, critical illness, cardiac arrest, metabolic disorders, and monitoring ventilation. Overall, pCO₂ testing helps veterinarians understand the respiratory status of animals and guides appropriate management and treatment strategies.



Partial pressure of oxygen (pO₂) indicates the amount of oxygen gas dissolved in the blood. It is an important indicator of how well oxygen is being transferred from the lungs to the bloodstream. Testing pO₂ in animals is recommended in the following situations: respiratory distress, anesthesia, critical illness, pulmonary disease, cardiac disease, post-surgery, and high-altitude.



Specifications

Subject	Specifications
Model	TT-BGA01
Operating condition	10°C-31°C
Sample	Whole blood
Technology	Electrochemistry/Microfluidic method
Sample volume	150 μ L
Size	235 mmx210 mmx160 mm($\pm$ 10mm)
Weight	3.0+0.5kg (with battery)
Test time	Calibration less than 3 minutes; Measuring time less than 45 seconds
Memory	100,000 test results and 10,000 control results

How to use



Scan the barcode on the cartridge pouch and take out the cartridge.



Fill the inlet with sample till the fill mark and cover the cap to seal the sample inlet.



Insert the cartridge until it clicks. Wait for the results.