



BEACON

INSTRUCTION FOR USE

BEACONIC L3

CODE	PRODUCT NAME	PACK SIZE
BL362	Beaconic L3	500 ml

INTENDED USE:

Beaconic L3 is intended to dissolve RBC instantly with minimum ground substance complex. Transform the membrane of WBC to diffuse cytoplasm, and then WBC shrink to form membrane-bound nuclei. Transform the hemoglobin to form hemo-compound which is suitable for the measurement in the condition of 540nm wavelength.

PRINCIPLE:

The cells are counted and sized by the electrical impedance method. This method is based on the measurement of changes in electrical current which are produced by a particle, suspended in a conductive liquid, as it passes through an aperture of known dimensions. An electrode is submerged in the liquid on either side of the aperture in order to create an electrical pathway through it. As each particle passes through the aperture, a transitory change in the resistance between the electrodes is produced. This change produces a measurable electrical pulse. The number of pulses generated is indicative of the number of particles that traversed the aperture. The amplitude of each pulse is essentially proportional to the volume of the particle that produced it. Each pulse is amplified and compared to internal references voltage channels. These channels are delineated by calibrated size discriminators to accept only pulses of certain amplitude. Thus, the pulses are sorted in to various size channels according to their amplitude. According to the volume, WBCs handled by Beaconic L3 can be sub divided into three categories (LYM, MID, GRAN).

Beaconic L3 added into the blood sample will crack the membrane of red blood cells promptly and transfer into a kind of compound which can absorb the wavelength of 540 nm. Through the comparison of the absorbance between the pure diluent and the sample, the concentration of sample hemoglobin is calculated.

ACTIVE INGREDIENTS

Buffer

Quaternary ammonium salt

WARNINGS & PRECAUTIONS

Do not inhale or ingest. In case of inhalation or ingestion, seek medical advice immediately.

Avoid skin contact. In case of skin contact rinse immediately with plenty of water. In case of eye contact rinse immediately with plenty of water & seek medical advice immediately.

STORAGE & USAGE:

The reagent is ready to use & must be stored at 15-35°C. Unopened Beaconic L3 stored at 15-35°C has a product life of 24 months. Do not use expired product. You can only proceed to test samples after you have confirmed that the measured blank value is within the required range.

Following conditions may produce interference to test result: expired reagent, reagent contaminated by dust, unclean sample dilution, reagent mixed with those of other manufacturer.

SPECIMEN:

Beaconic L3 is intended for use with blood specimens collected either by vein puncture or micro-sampling by skin. Consider all the clinical specimens, controls and calibrators etc. that contain human blood or serum as being potentially infectious, wear lab coats, gloves and safety glasses and follow required laboratory or clinical procedures when handling these materials.

Blood collection and disposal should be performed according to local and national environmental regulations or laboratory's requirements.

Be sure the blood collection clean and contamination-free. All specimens must be properly collected in tubes containing the EDTA (EDTA-K₂·2H₂) anticoagulant used by the laboratory.

Do not shake the sample tube violently. Venous blood can only be stored for 4 hours at room temperature. Manufacturer recommends the blood sample be kept at temperature between 2-8° C for longer storage.

Venous Blood Collection: Collecting whole blood sample through vein-puncture and store in a clean sample tube with EDTA- K₂·2H₂O, which can keep the configuration of WBC, RBC and avoid platelets aggregation. Gently shake the tube 5~10 times to make it well mixed.

Peripheral Blood Collection: Capillary blood is usually collected from fingertip. The volume of sample tube is set to be 20µl.

REAGENT PREPARATION:

This reagent is ready for use and can be applied straight from the container, no special reagent preparation is necessary. Leave the reagent at room temperature for at least 12 hours.



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REFERENCE RANGE:

WBC: $4 - 10 \times 10^9/L$

RBC: $3.50 - 5.50 \times 10^{12}/L$

HGB: 11 – 15 gm/dL (female)

13 – 17 gm/dL (male)

MCV: 80 – 100 fL

PLT: $100 - 300 \times 10^9/L$

It is recommended that each laboratory establish its own expected reference intervals based up on the laboratory's patient population encountered during daily operation

DISPOSAL PROCEDURE:

Disposal procedures should meet requirements of applicable local regulations.

PROCEDURE:

Gently shake the tube to well mix the blood sample, the place the sample tube beneath the probe, make sure the probe touches tube bottom slightly. Press run key and remove the sample after hearing beep sound. Process of analysis will take some time, please wait a moment.

MATERIAL REQUIRED BUT NOT PROVIDED

1. beaconic 3-part Hematology Analyzer
2. Diluent
3. Cleaner
4. EDTA tubes
5. Blood mixer



Symbols used:

Manufacturer	
In Vitro Diagnostics	
Temperature Limitation 15°C to 35°C	
Caution	
Do not reuse	
Fragile	
Keep package Dry	
This way up	
Keep away from sunlight	



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