BIOGENIX
INC. PVT. LTD.

Blood Cell Diluent Reagent

(For Complete Blood Count Analysis)

CLINICAL SIGNIFICANCE

Diluents are in vitro diagnostic reagents used to determine erythrocytes (RBC), leukocytes (WBC) and the leukocyte subpopulations, thrombocytes (PLT) and measurement of hemoglobin (HGB) concentration. Diluents come under low to moderate risk class of in vitro diagnostics and it is come primary screening of blood samples.
Diluent is not stand-alone device, to detect & analyze whole blood need hematology cell counter. Diluents are the aqueous solution which is ready for use and can be applied straight from the container; no special reagent preparation is necessary. Instrument adds diluents and lytic reagent automatically while measuring and display hematogram. Measurement results are printed out by outer printer or inner thermal recorder. Read the instruction manual carefully and follow the directions when using any mode analyzer.

PRINCIPLE

The diluents Reagent is a chemical composition of organic buffers, anesthetics, and germicides in an osmotically balanced neutral solution that includes the following:
Sodium chloride allows the diluent to become an electrolyte capable of conducting electrical current in an electronic analyzer and, along with Sodium Sulfate and Procaine Hydrochloric Acid, provides buffer for pH balance and cell component stabilization (that is, becoming an isotonic solution, stabilizing blood cell volume, and reducing turbidity in the measurement of hemoglobin).

REAGENT COMPOSITION

Reagent: Blood Cell Diluent Reagent

SAMPLE COLLECTION AND PRESERVATION

Collect whole blood into an appropriate blood collection tube with anticoagulant (EDTA).

REAGENT PREPARATION

Ready to use reagent.
Perform priming after connecting the reagent to the instrument.

REAGENT STORAGE AND STABILITY

When stored between 15-30°C the reagent is stable until the expiration date stated on the label.

REFERENCE VALUES

The reference values are only indicative in nature.
Every laboratory should establish its own normal ranges.

MANUAL ASSAY PROCEDURE

1. Connect the tubing of Blood Cell Diluent Reagent with hematology cell counter.
2. Perform the priming of diluent to prepare the reagent for analysis.
3. Then push the sample aspiration button and aspirate the blood sample.
4. Wait for analysis to complete.
5. Note or take printout of the readings.

QUALITY CONTROL

It is recommended to run random samples along with pathological blood controls which are commercially available to verify the performance of the measured procedure.
The result values should fall within the control limits.

NOTES

Always use the fresh blood samples for better accuracy and results.
Mix the samples properly for efficient analysis.

BIBLIOGRAPHY

1- Segal et al. "Hemolytic properties of synthetic glycosides" J. Pharma. Sci. (1978) 67(11): 1589-1592. *
2- Tatsumi, N., "Alterations of Saponin Hemolysis During Storage of ACD Blood", Vax Sanguinis, vol. 41, No. 1 (Jul. 1981); pp. 18-24.

Mfg. By: BIOGENIX INC. PVT. LTD.
Factory: B - 19/A, S.I.L Ancillary Estate, Amausi Industrial Area, Nadarganj, Kanpur Road, Lucknow - 226008 (U.P.), India
Email: biogenix2007@yahoo.com, info@biogenixinc.com
Website: www.biogenixinc.com
Customer care no: +919140971443

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