# TURK SOLUTION

METHOD - STAIN PRODUCT CODE - OT - 23



# INSTRUCTIONS FOR USE

## INTENDED USE: Diluting Fluid for W.B.C.

#### SUMMARY AND EXPLANATION

Turk Solution is used for performing the WBC (Leucocyte) count.

### **PRINCIPLE**

Glacial acetic acid lyses the red cells. Gentian violet slightly stains the nuclei of the leucocytes. The blood specimen is diluted 1:20 in a WBC pipette with the diluting fluid and the cells are counted under low power of the microscope by using a counting chamber. The number of cells in undiluted blood is reported per cu mm (µI) of whole blood.

### REAGENTS

Gentian Violet. **Turk Solution** Glacial Acetic acid

#### **PRECAUTIONS**

This product is for in Vitro diagnostics use and should be used by properly trained individuals. Precautions should be taken against the dangers of microbiological hazards by properly sterilizing specimens, containers and media after use. Directions should be read and followed carefully.

#### **STORAGE**

Store product in its original container at room temperature until used. Keep container tightly closed during storage.

### PRODUCT DETERIORATION

This product should not be used if:

- 1. The color has changed.
- 2. The expiration date has passed.
- 3. There are other signs of deterioration.

## MATERIALS REQUIRED BUT NOT SUPPLIED

- 1. Counting Chember.
- 2. W.B.C.Pipette.
- 3. Microscope with oil immersion lens.

## SPECIMEN COLLECTION AND PREPARTION

SPECIMAN COLLECTION: Whole Blood or Blood with EDTA.

# REAGENT PREPARATION: The reagent is Ready-To-Use.

### **PROCEDURE**

- 1. Draw EDTA anticoagulated blood to 0.5 mark in the capillary end of WBC pipette.
- 2. Carefully, wipe excess blood outside the pipette by using cotton.
- 3. Draw Turk Solution up to 11 mark.
- 4. Mix the contents in pipette and after 5minutes by discarding few drops, fill the counting chamber and allow the cells to settle for 2-3 minutes
- 5. Focus on 1 of the "W" marked areas (each having 16 small squares) by turning objective to low powder.10X Examine under oil immersion microscope.
- 6. Count cells in all 4 "W" marked corner squares.

#### RESULTS AND INTERPRETATION

Number of WBCs/cumm(µI)of whole blood =No. of WBCs counted X Dilution / Area counted X Depth of fluid.

where, Dilution = 20; Area counted = 4x1sq.mm = 4sq.mm; Depth =0.1mm(constant).

No. of leucocytes / cu mm( $\mu$ l) of whole blood = No. of cells counted X 20 / 4 X 0.1

= No.of cells counted X50

#### QUALITY CONTROL

All lot numbers Turk Solution have been tested and found to be acceptable. The patient sample can serve as quality control to verify the efficacy of the reagents.

#### **BIBLIOGRAPHY**

Text book of Medical Laboratory Technology; Praful B. 1. Godkar.

 $|\mathbf{i}|$ IVD SYMBOLS: Storage Temperature Read Instruction for use In Vitro Diagnostic Use Only Manufactured by Expiry Date

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