EOSINOPHIL DILUTING FLUID

BIO LAB DIAGNOSTICS
ISO 9001:2015
ISO 13485:2016
CE

PRINCIPLE

Eosinophils are selectively colored to pinkish orenge while other white blood cells are uncolored. Diluted samples in eosinophil diluting fluid are charged to a Neubauer counting chamber and the pinkish colored cells are counted and calculated appropriately.

REAGENTS COMPOSITION

Eosin Sodium	1 Gram/L
Acetic Acid	28.6mL/L
Distilled water	qs

Working Reagent Preparation

Reagent is ready to use. May be filtered through watmann No 1 if precipitates or dust particles visible under microscope.

STORAGE AND STABILITY.

Tight Capped Reagent is stable at room temperature until expiry date stated on the label.

MATERIALS REQUIRED BUT NOT SUPPLIED.

1. Microscope with 45 x objectives
2. Neubauer counting chamber with cover glass.
3. 20 µL pipette with tips.
4. 200 µL pipette with tips.
5. Test tubes (75 × 12 mm)
6. Petri dish with moist filter paper.

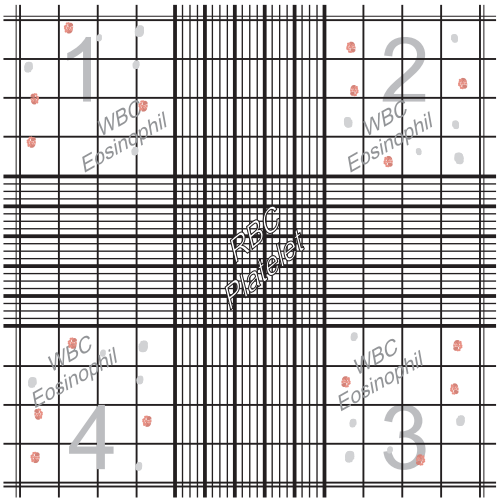
SAMPLE COLLECTION AND HANDLING.

Whole blood collected in K_3 EDTA. Samples can be stored in 2-8°C for a week if the test need to perform at a later time. DO not Freez the sample below 2°C.

PROCEDURE

1. Label test tubes with Sample ID
2. Pipette 200 µL Eosinophil diluting fluid.
3. Pipette 20 µL well mixed whole Blood sample.
4. Mix well and Charge in a Neubauer counting chamber.
5. Keep the charged chamber for 5 minutes under a petridish with moist filter paper.

Neubauer counting chamber



6. Count only distinctly pinkish orange colored Leucocytes in all 4 corner WBC column squires under 45 x microscope.
7. Calculate absolute Eosinophil count as per result calculation column.

RESULT CALCULATION

$$\text{Absolute Eosinophils / } \mu L = \frac{T\ E\ C}{4} \times \frac{220}{20} \times 10$$

Absolute Eosinophils / µL = TEC × 27.5

Where TEC = Total Eosinophil Counted in 4 mm^2

$\frac{220}{20}$ = Dilution of sample

10 = Depth of counting chamber.

EXPECTED VALUES

Absolute Eosinophils < 650 / µL
Each laboratory should establish its own normal values.

BIBLIOGRAPHY

1. Rider RF., Semin. Hematology 11.423 1974
2. John D Bauer., Numerical Evaluation of formed elements of blood., Gradwohl's clinical laboratory methods and diagnosis vol I page 797/9.

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