

PRODUCT CODE
BS021

APPLICATION

Reticulocytes are immature red blood cells (RBC), and contain remnants of the ribosomes and ribonucleic acid which were present in larger amount in the cytoplasm of their nucleated precursors. The basic dye is precipitated into a meshwork (reticulum) within the cell. This reticulum appears deep blue against an unstained background and consists of remnants of basophilic ribonucleoprotein (Normally found in the cytoplasm) and the more mature cell the less reticulum found.

REAGENT COMPOSITION

Azure B	1.0 %
Sodium chloride	0.72 %
Sodium citrate	0.6%

REAGENT PREPARATION

It is recommended to filter all stain before use.

REAGENT STORAGE AND STABILITY

The reagent is stable up to the stated expiry date when stored at 15-25° C. Keep tightly closed to prevent air oxidation.

SPECIMEN

EDTA anticoagulated blood

PROCEDURE

- 1- Place 2-3 drops of the dye in the glass test tube.
- 2- Add 2-3 drops of the blood; gently mix.
- 3- Incubate at 37°C for 15-20 minutes.
- 4- Gently resuspended the cells.
- 5- Make blood films and allow them to dry.
- 6- Examine the smear by microscope under immersion oil.
Normal red cells appear greenish blue, reticulocytes greenish blue with deep blue intracellular precipitate.
- 7- Count at least 1000 red cells and calculate the percentage of reticulocytes present.

CALCULATIONS

Reticulocytes percentage =
$$\frac{\text{Number of reticulocytes counted} \times 100}{\text{Number of red cells counted (RBC+Retics.)}}$$

Example

Suppose

(a) Number of red cells counted = 1200

(b) Number of reticulocytes counted = 60
 60×100















%, Reticulocytes =
$$\frac{60 \times 100}{1200 \text{ (RBC + Retics.)}}$$

= 5%

NORMAL RANGE

Adults and children	0.2 – 2.0 %
Infants full term	2.0 – 6.0%

SYMBOLS ON LABELS

Symbols	Signify	Symbols	Signify
	Catalogue Number		Pack Size
	Expiry Date		Volume
	Storage Condition		Lot Number
	Instruction for Use		In Vitro Diagnostics
	Manufacturing Date		Manufacturer
	Number of Tests		For Single Use Only
	EC Representative		European conformity

REFERENCE

- 1- Raphael, S.S. Lynch's Medical Laboratory Technology, Fourth Edition. Saunders Company, Philadelphia, PA, 1983.
- 2- Lillie, R.D. H.J. Conn's Biological Stains, Ninth Edition. Williams and Watkins Company, Baltimore, MD, 1977.