BIOGNOST®

THROMBOGNOST SOLUTION

IVD *In vitro* diagnostic medical device CE

Solution for manual thrombocyte counting in microscopy

INSTRUCTIONS FOR USE

REF Product code: THR-OT-100 (100 mL) THR-OT-500 (500 mL) THR-OT-1L (1000 mL)

Introduction

Thrombocytes are blood platelets, bodies without nuclei created from acidophilic megakaryocytes in bone marrow sinusoids. They play a very important role in the blood clotting process. Thrombocyte count in peripheral blood is indicative of erythropoietic activity, thrombocyte counting represents one of basic and most commonly used methods in diagnostic hematology. During each counting method it is important to correctly prepare and dilute the blood sample in a specific volume.

Product description

- **THROMBOGNOST SOLUTION** – solution for manual thrombocyte counting

Testing sample

- Uncoagulated venous or capillary blood

Other necessary equipment:

- Blood diluting pipettes (Neubauer or Bürker-Türk's chamber)
- Erythrocyte mixer
- Coverslip
- Sterile micro lancet
- Microscope

Preparation

Filling the pippettes

Fill the pipette with ThromboGnost solution up to 0.5 mark and then draw blood from fingertip (previously disinfected and pierced with sterile lancet with the first drop wiped) to the 0.5 mark (indrawn ThromboGnost should be pressed to 1). Wipe the blood off tip of pipette on the outside with cotton wool and fill the pipette again with the dilution (ThromboGnost solution) to 101 mark. Dilution is 200x. After the filling, the pipette is mixed for 2-3 minutes, and then the cell counting chamber is filled with ingredients*. The chamber filled with the pipette content is left in wet chamber for 15 minutes.

*Note – if thrombocytes are not counted immediately after pipette filling, the pipette should be mixed for 6 minutes prior to placing the contents to the cells counting chamber.

Counting thrombocytes

Hemocytometer is placed on microscope and counting commences. Thrombocytes are counted under medium microscope magnification (40x), on 1 mm^2 surface chamber (big central square in the chamber). All thrombocytes in the square are counted, as well as those touching two adjacent edges of the (for instance, left and upper edge, but thrombocytes touching two other edges are not). Microscope's field of vision shows all the blood cells; thrombocytes are brilliant so they must be observed carefully so they are not mistaken with dust particles.

Calculating results

The obtained number of thrombocytes on 1 mm^2 surface must be multiplied with dilution and chamber depth. The result is the number of thrombocytes per 1 microliter.

Thrombocytes/µL = A x 200 x 10

A = number of thrombocytes counted in $1mm^2$

200 = dilution

10 = chamber depth

Normal thrombocyte values:

Grownups: 150 – 400 x 10^9 /L

Preparing the sample and diagnostics

Use only appropriate instruments for collecting and preparing the samples. All the samples must be processed with the most modern technology and be visibly marked. Follow the manufacturer's instructions for handling. In order to avoid mistakes, staining must be conducted by a trained professional. Only trained medical personnel may make a diagnosis. Use only microscope according to standards of the medical diagnostic laboratory. In order to avoid an erroneous result, a positive and negative check is advised before application.

Safety at work and environmental protection

Handle the product in accordance with safety at work and environmental protection guidelines. Used solutions and out of date solutions should be disposed of as special waste in accordance with national guidelines. Chemicals used in this procedure could pose danger to human health. Tested tissue specimens are potentially infectious. Necessary safety measures for protecting human health should be taken in accordance with good laboratory practice. Act in accordance with signs and warnings notices printed on the product's label, as well as in BioGnost's material safety data sheet which is available on demand.

Storing, stability and expiry date

Keep ThromboGnost solution in a tightly closed original package at temperature between +15°C and +25°C. Do not freeze and avoid exposing to direct sunlight. Date of manufacture and expiry date are printed on the product's label.

References

1. Carson, F. L. (2007), Histotechnology, 2nd ed. Singapore
2. Cook, D. J. (2006): Cellular pathology, 2nd ed. Banbury: Scion Publishing Ltd.
3. Kiernan, J. A. (2008) Histological and histochemical methods, 4th ed. Bloxham: Scion Publishing Ltd.

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	Refer to the supplied documentation	°C	Storage temperature range	Σ	Number of tests in package	REF	Product code	CE	European Conformity	BIOGNOST Ltd. Medjugorska 59 10040 Zagreb CROATIA www.biognost.com	CE
	Refer to supplied instructions		Keep away from heat and sunlight		Valid until	LOT	Lot number		Manufacturer		
IVD	For *in vitro* diagnostic use only		Keep in dry place		Caution - fragile						