Ana-Chek® HAEMOGLOBIN

METHOD – CYANMETHEMOGLOBIN
PRODUCT CODE – LD01

ANAMOL
THE ORIGINAL MAKERS

INSTRUCTIONS FOR USE

INTENDED USE: Quantitative determination of Haemoglobin in whole blood using Cyanmethemoglobin method.

SUMMARY & PRINCIPLE

The haemoglobin is a protein that contains iron and that the red colour to the blood. The haemoglobin is in red globules and it is the one in charge of oxygen transport by the blood from the lungs to weaves. When the level of haemoglobin appears underneath the normal levels is describing an anaemia that can be of different origins: primary anaemia, cancer, pregnancy, renal diseases, and haemorrhages. If the haemoglobin levels appear high it can be due to: cardiopathies, dehydration and stays in places of much altitude. Clinical diagnosis should not be made on a single test result; it should integrate clinical and other laboratory data. In the cyanmethemoglobin method, erythrocytes are lysed by a stromatolytic reagent in the presence of a surfactant and release their haemoglobin in to the solution. Haemoglobin is oxidised to methemoglobin by ferricyanide, and the methemoglobin is converted into the stable cyanmethemoglobin by addition of KCN. The absorbance of cyanmethemoglobin is measured at 540 nm and the colour intensity is directly proportional to haemoglobin concentration.

REAGENT COMPOSITION

Reagent 1 : Haemoglobin Reagent
Reagent 2 : Haemoglobin Standard (15 gm/dL).

PREPARATION, STORAGE & STABILITY

Haemoglobin is single ready to use reagent. The reagent should be stored at room temp. The kit is stable till the expiry date indicated on the label.

SPECIMEN COLLECTION & PRESERVATION

Collect whole blood with EDTA using aseptic technique. Whole blood collected with EDTA is stable for one week at 2 - 8°C.

TEST PARAMETERS

Name	Haemoglobin
Reaction Type	End Point
Wavelength	540 nm
Flow Cell Temp.	37 °C
Blank setting	Reagent
Standard Conc.	15 gm/dL

Reagent Volume	5000 µl
Sample Volume	20 µl
Temperature	R.T.
Incubation Time	5 min.
Factor	36.7
Linearity	20 gm/dL

ASSAY PROCEDURE

	Blank	Standard	Test
Reagent	5000 µl	5000 µl	5000 µl
Standard	NA	20 µl	NA
Sample	NA	NA	20 µl
Mix the reagent and sample/standard in the above-mentioned ratio.			
Incubate the assay mixture for 5 mins at R.T. and record the absorbance at 540 nm.			

CALCULATION

With Standard:

$$\text{Haemoglobin (gm/dL)} = \frac{\text{Abs. of sample} \times \text{Conc. of Standard}}{\text{Abs. of standard}}$$

With Factor:

$$\text{Haemoglobin (gm/dL)} = \text{Abs. of sample} \times \text{Factor}$$

REFERENCE VALUES FOR NORMAL PEOPLE

Adult Male : 13.0 – 18.0 gm/dL
Adult Female : 11.0 – 16.0 gm/dL
Children : 10.0 – 14.0 gm/dL
New-born : 14.0 – 23.0 gm/dL

QUALITY CONTROL

1. Inclusion of a normal value and abnormal value control in each test run ensures optimum quality control.
2. Consistent use of same type and methodology of control provides between run precision and accuracy data. We recommend to produce such data on daily basis for greater accuracy in assay system which include reagents, instrument, apparatus and operator.

PRECAUTIONS

1. Potassium Cyanide: Very toxic by inhalation if comes in contact with skin or swallowed. Contact with acids liberates very toxic gases.
2. Keep container tightly closed. After contact with skin, wash immediately with plenty of water. Do not empty into drains. In case of accident or if you feel unwell, seek medical advice immediately. This material and its container must be disposed as hazardous waste. Avoid release into environment. Refer to special instructions/safety data sheets.
3. Cyanide (poison): The amount of cyanide in the reagent concentrate (50x) is appreciably less than the minimum lethal dose for an adult. Gaseous hydrogen cyanide will be released on contact with acids.

BIBLIOGRAPHY

1. Eilers R.J., Am. J. Clin. Path., 47: 212 (1967).
2. Tietz N.W., Fundamentals of Clinical Chemistry.2nd ed. W.B. saunders Co., Philadelphia p 411 (1976)

Symbol	Explanation	Symbol	Explanation
	Manufactured By	IVD	In Vitro Diagnostic Use
LOT	Lot Number		Read Instructions Before Use
REF	Catalogue Number		Storage Temperature
	Manufacturing Date	Σ	Number of Tests / Volume
	Expiry Date	2	Do Not Reuse
	Protect from Sunlight		Keep Dry

ANAMOL LABORATORIES PVT. LTD.
61, Genesis Industrial Township, Kolgaon,
Palghar – 401 404. India.
Customer Care & WhatsApp: +91-9823388695.

admin@anamollabs.com
exports@anamollabs.com
www.anamollabs.com

ISO 9001: 2015
ISO 13485: 2016
GMP
CE

ALPL/IFU/LD01/ Rev.02
Effective Dt. – 19/08/2025