



# Hemoglobin

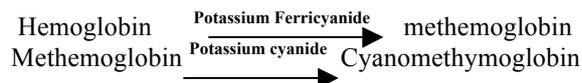
**Liquid Stable Reagent**

**Drabkin Method**

**Store at 2-8C and away from direct light**

## PRINCIPLE

Hemoglobin is converted to Cyanomethemoglobin according to the following reaction :



## REFERENCE VALUES

|          |            |
|----------|------------|
| Men      | 13-18 g/dl |
| Women    | 11-16 g/dl |
| New-born | 14-23 g/dl |

This Ranges are given for orientation only, each laboratory should established its own reference ranges.

## SAMPLES

Fresh EDTA whole blood. Capillary blood.  
Hemoglobin is stable for 7 days at 2-8°C.

## REAGENTS

|                         |            |
|-------------------------|------------|
| Potassium ferricyanide  | 0.6 mmol/L |
| Potassium cyanide       | 0.9 mmol/L |
| Monopotassium phosphate | 1.0 mmol/L |
| Surfactant              | S.Q.       |

## PREPARATION OF WORKING REAGENT

Dilute Drabkin reagent 1/50 with distilled water.  
4.9 ml distilled water + 2 drops of con. reagent or 49 ml distilled water + 1 ml con. reagent  
The working reagent is stable 1 month at 2-8°C away from direct light.  
Keep bottles closed after use.

## PROCEDURE

|                 |                         |
|-----------------|-------------------------|
| Wave length     | 540 nm /546 nm          |
| Temperature     | 25°C/30°C/37°C          |
| Zero adjustment | diluted drabkin reagent |
| Cuvette         | 1 cm light path         |
| Method          | Endpoint - Increasing   |

|                 |       |
|-----------------|-------|
| Sample          | 20 µL |
| Working reagent | 5 ml  |

Mix well and after 5 minutes incubation, measure the optical density (O.D) . The color is stable up to 30 minutes.

## CALCULATION

Hemoglobine concentration with out standard  
= O.D sample x 36.8

## LINEARITY

Up to 21 g/dl.

## NOTE

- A calibration curve or standard must be prepared if measurement can not be taken at 540 nm or 546 nm.
- The reagent contains cyanide which is poisonous, do not pipette by mouth.
- Human blood used in the preparation of standard has been tested and found to be negative for the presence of antibodies anti HIV and anti HCV, as well as for HBs antigen. However, the standard should be handled cautiously as potentially infectious.

## BIBLIOGRAPHY

Drabkin D. L., Etal J. Biol. Chem., 98,719 (1932).

## The following symbols are used on labels



**For in vitro diagnostic use**



**Use day (last day of the month)**



**Temperature limitation**



**Batch code**



**Code**