



## **SICKLE-TEST**

### **RAPID SCREEN FOR HbS**

For *In-Vitro* and professional use only

The reagents consist of buffered Saponin (Reagent A) and a reducing agent, Sodium Dithionite, (Reagent B). A viewing card is also included.

#### **WORKING SOLUTION**

Bring 1 bottle of Reagent 'A' and 1 vial Reagent 'B' up to Room Temperature. Add Reagent 'B' to Reagent 'A' and mix well for 5 minutes. **RECORD date on bottle.**

#### **METHOD**

1. Using the solution prepared as above, place 2 ml quantities into the required number of 75 x 12mm tubes.
2. Using whole anticoagulated blood (EDTA), add (20 µl) to each tube. Mix well and **stand for 3 – 5 minutes**. Hold against viewer or 1cm away for best results.
3. Always use known **POSITIVE** and **NEGATIVE** controls.

#### **RESULTS**

**NEGATIVE:** Clear haemolysed solution.

**POSITIVE:** Turbid red solution, partially or completely obscuring the lines on the viewer.

**CENTRIFUGATION:** Positive results should be centrifuged for 5 minutes at 1000 rcf.

#### **INTERPRETATION**

**HETEROZYGOUS:** red-pink supernatant with a dark red band at the top.

**HOMOZYGOUS:** Yellowish supernatant with a dark red band at the top.

**NEGATIVE:** Slight greyish matter on top of deep red haemolysate.

#### **NOTES**

1. The working solution should be kept refrigerated and will remain stable for up to 2 weeks. **Allow to come to room temperature before use.**
2. **ANAEMIC SAMPLES** Adjust haematocrit to approximately 50% by removal of plasma. **DO NOT** add double volume of sample.
3. **False Positives** may be caused by abnormal plasma protein or when patients are receiving parental nutrition.
4. **False Negatives** may be found if old or outdated reagents are used, or the blood of small children under the age of 6 months if the proportion of HbS is less than 20%, or following Blood transfusion in severe anaemia.
5. The test is based on the Haemoglobin Solubility Test described by Huntsman et Al, J.Clin.Path. **23**,1970 781-783 and Itano, H.A. Arch.Biochem **47**, 148-159.

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