

Alkaline Hemoglobins Electrophoresis Kit



Kit REF.
SRE604K (130 tests)

HbA

The *Microgel*/INTERLAB G26 Alkaline Hemoglobins Electrophoresis method provides a ***new level of total automation on agarose gel.***

You simply pipette the hemolysates into the sample wells, put the gels in the holders, start the instrument and **WALK AWAY!**

HbF

- In the red blood cells of a normal adult three different types of hemoglobin exist. HbA is the major type with small amounts of HbA₂ and HbF. The two mutant hemoglobins most commonly seen are HbS and HbC (Hb Lepore, Hb Bart's, HbH, HbE, HbG-Philadelphia, HbD-Los Angeles, and HbO-Arab may be seen less frequently).
 - The alkaline hemoglobins electrophoresis test system is intended for the separation of normal hemoglobins (HbA and HbA₂) as well as certain abnormal or variant hemoglobins (HbS or HbD, and HbC or HbE). However, some abnormal and normal hemoglobins may co-migrate (for example, HbA₂ and HbC; and HbS and HbD).
 - Hemoglobins with identical mobility can be differentiated by hemoglobin electrophoresis test run at acid pH. Acid hemoglobins electrophoresis allows separation of these hemoglobins to confirm the identity of clinically relevant hemoglobins such as HbA, HbF, HbS and HbC.
 - Hemoglobinopathies comprise a large number of hereditary disorders that can produce either qualitative modification of hemoglobin structure, or quantitative variations of hemoglobin synthesis, this eventually leads to an imbalance of the normal concentration of the different types of hemoglobins.
 - The term Thalassemia refers to a group of diseases (also called syndromes) with similar clinical effects, whose main biochemical feature is the imbalance between the synthesis rate of one type of globin chain and that of its mate. Globin chain imbalance damages and destroys red cells leading to anemia.
- HbS
- HbA₂

KIT CONTENT

Gel Plates	10
Blotting Paper	10
Buffered Sponges	20
Acid Blue Stain	1
Applicator Washing Sol.	1
Lysing Solution	1
Disposable Sample Plates	10

REAGENT PREPARATION

Reagents are ready to use, only the Stain has to be reconstituted with 900 ml of distilled water. All may be stored at room temperature.

SAMPLE PREPARATION

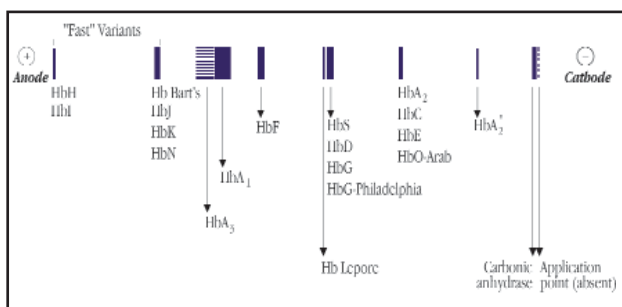
After the red blood cells (RBC) are washed, they are lysed as follows: 50 µl of packed washed RBC + 200 µl of lysing solution.

SAMPLE STORAGE and STABILITY

Whole blood: 1 week at 2 to 8°C.

Hemolysate: 12 hours at 2 to 8°C.

Position of hemoglobin bands on Alkaline Hemoglobin gel

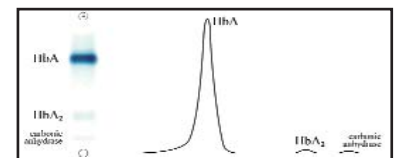
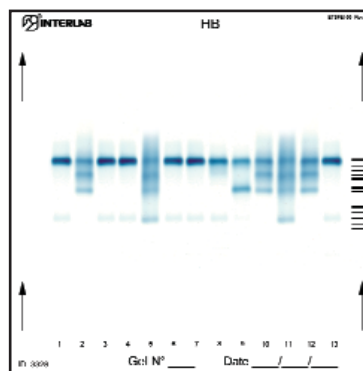


The presence of an abnormal qualitative hemoglobin needs a complementary identification by the Acid Hemoglobin gel kit SRE605K.

Adult normal values range*

Hb type	Tot. Hb.%
HbA	96-99
HbA ₂	1-3,5
HbF	<2

*Each Laboratory should establish its own normal values range.



Normal Hemoglobin Pattern

PERFORMANCE CHARACTERISTICS

Accuracy

A total of 92 normal and abnormal hemolysates were tested with Interlab systems *versus* a commercially available agarose system.

This study yielded a 100% agreement with the reference method for the observed bands.

Within Run Precision

3 samples were run on 3 different gels. Each sample was run 13 times, on the same gel. Excellent C.V. was achieved, see table below.

Between Run Precision

4 samples were run on 10 different gels. Excellent C.V. was achieved, see table below.

Accuracy

Fraction	Correlation Coefficient
HbA	1.00
HbF	1.00
HbS	1.00
HbA ₂	0.97

Within Run Precision

Fraction	C.V. (%)
HbA	0.20
HbF	0.6
HbS	1.7
HbA ₂	4.0

Between Run Precision

Fraction	C.V. (%)
HbA	0.6
HbF	1.1
HbS	2.2
HbA ₂	7.4



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