BioLC

HbA1HPLC

Analytical Technologies Limited
An ISO 9001 Certified Company
www.analyticalgroup.net
BioLC™ Systems, Reagent Kits, Calibrator and Controls for Clinical & Medical Diagnostics

- **Diabetes, Hemoglobins:**
  - Hemoglobin Variants / Hemoglobin Al c(HbA1c)
  - For Variant™ and BioLC OR hba1 HPLC
  - Hemoglobin Aic (HbA1c) in Whole Blood with Diamattm™

- **Alcoholism, Drug Abuse:**
  - Basic Drugs in Urine - On-Line Analysis
  - Benzodiazepines in Urine - On-line Analysis
  - CDT in Serum
  - Manual sample preparation
  - TOX.I.S
    - Basic Drugs in Urine - On-Line Analysis
    - Benzodiazepines in Urine - On-Line Analysis

- **Biogenic Amines:**
  - Catecholamines in Urine & Plasma
  - Metaneprines
  - VMA, HVA, 5-HIAA in Urine
  - Serotonin
  - with manual and automatic sample preparation

- **Metabolic Diseases:**
  - Porphyrins Differentiated in Urine
  - 5-Aminolevulinic Acid
  - Porphobilinogen in Urine
  - Homocysteine in Plasma
  - Hydroxyproline in Urine

- **Oxidative Stress:**
  - Coenzyme Q10 in Whole Blood / Plasma / Serum
  - Carotene in Plasma / Serum
  - Glutathione in Whole Blood
  - Malondialdehyde in Plasma Serum
  - Vitamin C in Plasma

- **Therapeutic Drug Monitoring:**
  - Aminodarone / Desethylamiodarone
  - Benzodiazepines & Tricyclic Antidepressants
  - Antiepileptic drugs (mcl. Lamotrigine, Trileptal, Sultiam, Zonisamide)
  - Levetiracetam
  - Mycophenolic Acid
  - Olanzapine, Desmethylolanzapine
  - Itraconazole, Posaconazole
  - Anti-HIV Drugs

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Antipsychotic Drugs

A typical Neuroleptics in Plasma/ Serum - On-Line Analysis

**HbA1C HPLC**

**Introduction:**
Hemoglobin A1c(HbA1C)Hemoglobin venant are very useful tests in monitoring and diagnosis of diabetic, anemia, Sickle Cell, Thalassemia patients, HbA1c is Measurement of the Mean Amount of Blood Glucose Present in the patient Over The Previous 3 months and is Therefore useful as monitoring & Diagnostic Tools.

**Technology:**

HbA1C 3000 Uses Ion Exchange Chromatography In Conjunction with Gradient Elution to Separate Human Hemoglobin Subtypes and Venants from Hymolysed whole Blood, The Separated Hemoglobin Fractions are Monitored by means of Absorption of light And The Chromatogram Obtained is Recorded and Stored By Internal Computer. A software program in instrument performs the analysis of the Chromatogram Generates results.

- **Risk Factor For Arteriosclerosis:**
  - Homocysteine
  - Antipsychotic Drugs
  - A typical Neuroleptics in Plasma/ Serum - On-Line Analysis

- **Phenylalanine (Phe, Tyr, Trp):**
  - in Whole Blood, Plasma / Filterspots
  - Porphyrins Differentiated in Urine
  - Total Porphyrins in Urine

- **Vitamin Status:**
  - Vitamins A and E in Plasma
  - Vitamin Bi in Whole Blood
  - Vitamin B2 in Whole Blood
  - Vitamin B6 in Plasma / Whole Blood
  - Vitamins Bi, B2, B6 (Combikit)
  - 25-OH Vitamin D2 / D3 in Plasma / Serum

- **Metanephrines in Urine:**
  - with manual and automatic sample preparation
  - Serotonin in Plasma
  - Serotonin in Urine

- **Occupational Medicine:**
  - Hippurich Acid
  - Methyl Hippurich Acid,
  - Mendelic Acid
  - Phenyl Glyoxylic Acid
  - 0-Cresol
  - P-Cresol & Phenol

- **Osteoporosis Diagnosis:**
  - Cross links (pyridiloline, Dioxy pyridiloline)
  - 25/OH/Vitamin, D3/D2

- **Porphyrin Profiling:**

- **Amino Acids:**

BioLc is the First of its kind state of the art Technologies for Clinical & Medical Diagnostics
Performance Characteristics:
Method: Ion Exchange Chromatography with HPLC Principal Automatic Sample Entry on Board
Capacity of 50 sample or 120 samples sample Cycle: <= 150s/TEST Good Precision: CV <= 2%

Expand Capacity:
Transmit Data Via RS232
Print Test Result Automatically
Password Protected To Prevent Misuse
Sample Cycle: <= 150s/TEST (for HbA1 HPLC)
Spinning of vacutainer before aspiration to avoid improper sampling
Built column thermostat for reproducibility of results.

Testing:
Wavelength: 415NM (190-700 for BioLC)
Measuring Range (NGSP VALUES): 4%-17%, R >= 0.99
Precision: CV <= 2%
Automatic Mixing, barcode Reading and reagent Level Alarm
Power Source: Voltage: 220/240V
Current Frequency: 50-60Hz
Power: <= 100VA
Dimensions: L:W:H = 610MM*500MM*410MM
Net Weight: 28Kg

Optional Items:
Optional feature for HbA1c HPLC System
1 Automatic Mixing
2 Barcode Reading
3 Data Input: Touch Screen
4 Reagent Level Alarm
5 Eliminate Unstable RB and Identify Variant RB
6 Interface to Laboratory Information Management System (LIMS)
7 Automatic Identify The Sample Type: Diluent Mode Or Whole Blood Mode
8 Integral Thermal Printer
9 Autosampler (120 Samples)/Auto Loader (50 Samples)
Testimonials / Chromatograms

Chromatogram of the HbAlc reference standard (Order no 11011):
HbAlc analyzer Diamat, 5-min Program

Retention Time:
HbAla:  1.01 mm
Hbalb:  1.7 min
HbF:    2.1 min
HbAlc:  2.8 min
HbO:    4.0 min

Chromatogram of a hemolysed nondiabetic whole blood sample
HbAlc analyzer Diamat, 5-min Program

Retention Time:
HbAla:  1.2 mm
Hbalb:  1.6 min
HbF:    2.1 mm
HbAlc:  2.8 min
HbO:    4.0 min

Chromatogram of a hemolysed diabetic whole blood sample
HbA1c analyzer Variant

Retention Time:
HbAla:  0.38 min
Hbalb:  0.51 min
HbF:    0.72 min
HbAlc:  0.98 min
HbO:    1.58 mm

Chromatogram of a hemolysed whole blood sample with increased Hb F and heterozygote Hb S
HbAlc analyzer Variant

Retention Time:
HbAlb  : 0.53 min
HbF    : 0.75 min
HbA1C  : 0.99 min
HbA 0   : 1.61 min
HbS    : 1.78 min
HbA1c Chromatogram Report

Analytical Technologies Limited

VIVEK LABORATORIES

Chromatogram report details:
- Printing time: Thu May 05 17:00:20 2011
- Injection time: Wed May 04 15:00:01 2011
- Operator: unknown
- File opened: H:\vba1c report\HBA1c DATA\New Folders\method, std, hw, where

Chromatogram chart with peaks and areas.

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Recognized as REFERENCE LAB in NODAL COLLABORATION CENTRE under ICMR National External Quality Assurance Programme.
HbA1c Satisfactory Certificate

Certificate of Satisfaction

This is to certify that Mr. Ramesh Raj Service Engineer from Analytical Technology Ltd. installed HPLC for HbA1c parameter on 06th May 6, 2011 and given a demo about the instrument. We appreciate that his performance was fully satisfied.

Dr. S.K. Srinivasa Kannan, M.B.B. Ch.
PATHOLOGIST
VIVEK LABORATORIES
NAGERCOIL

Dr. Srinivasa Kannan MD (Path)
Vivek Laboratories
Nagercoil

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2. Improving quality of life by offering YOGA Training courses, Work shops / Seminars etc.

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Reach us @

Analytical Technologies Limited

Corporate & Regd. Office:
Analytical House, # E67 & E68, Ravi Park, Vasna Road, Baroda, Gujarat 390 015, INDIA

T: +91 265 2253620
+91 265 2252839
+91 265 2252370
F: +91 265 2254395

E: info@hplctechnologies.com
info@multiplelabs.com
info@analyticalgroup.net
info@analyticalbiomed.com

W. www.ais-india.com
www.analyticalgroup.net
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