Celltac α

Automated Hematology Analyzer

MEK-1301/1302

Quality hematology testing

Fighting Disease with Electronics

NIHON KOHDEN

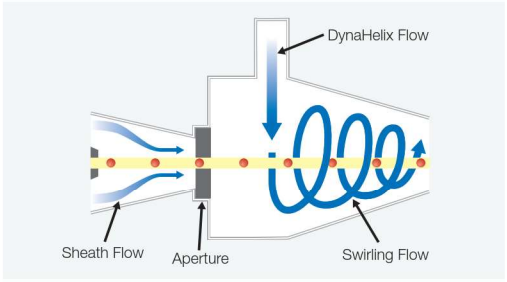
Innovation

Maximizes laboratory productivity

Quality hematology testing

DynaHelix Flow technology perfectly aligns RBC and PLT cells for high impedance counting precision using an advanced hydrodynamic-focused sheath flow before passing through the aperture. In addition, the DynaHelix Flow totally prevents the risk of coincidence or re-entry of counted blood cells into the aperture, using the unique DynaHelix Flow stream.

This newly-developed advanced DynaHelix Flow Technology greatly improves counting precision and accuracy.



Integrated QC program

- **The same QC material can be used for CBC and 3 part diff**
- **QC lot management up to 25**
- **Assay value registration using a handy barcode reader (standard accessory)**
- **Automated judgement function (pass or fail)**
- **QC management by assay value, average value or Westgard multirule**
- **QC graph display and printout (optional)**
- **Automated calculation of statistical information such as average and SD**

Reagent management

Standard accessory, barcode reader

Celltac α reagent management system helps easier reagent bottle management with a unique barcode labeled on each reagent. Through this system and use of genuine Nihon Kohden reagents, testing quality is always maintained at a high level.

Operational excellence

Smart ColoRerun Assist

Smart ColoRerun Assist helps to visually understand the reason of re-measurement, by showing color-coded messages. This unique user-oriented function greatly improves workflow efficiency and maximizes productivity for faster test reports and clinical decision making.

YELLOW

A panic value (far outside the normal range) needs to be reported to a doctor immediately

ORANGE

Possibly incorrect data due to problems caused by the state of the blood sample or the measuring procedure

RED

Possibly incorrect data due to a technical problem with the instrument or measuring procedure

A choice of two different models, depending on your needs

Celltac α has 2 different models; MEK-1301 and MEK-1302. MEK-1301 has open measurement mode and MEK-1302 has both open and closed measurement modes.

MEK-1301
(open mode only)

MEK-1302
(open and closed mode)

Built-in cap-piercing mechanism

The built-in cap piercing mechanism protects healthcare professionals from sample handling related infection.

It helps maintain a high standard of operating safety in the laboratory. Nihon Kohden MEK-1302 is equipped with this function which serves the needs of the laboratory during uncertain times such as during a pandemic.

Celltac α MEK-1301/1302

Key Specifications

- **Number of measuring parameters:** 23
  WBC, LY%, MO%, GR%, LY#, MO#, GR#, RBC, HGB, HCT, MCV, MCH, MCHC, RDW-CV, RDW-SD, PLT, PCT, MPV, PDW, P-LCR, P-LCC*, Mentzer Index*, RDWI*
  * Research parameters

- **Measuring mode:**
  Open mode, Closed mode*, Capillary mode
  * Available on MEK-1302

- **Throughput**
  CBC + WBC 3 part differential: Approx. 60 samples/h (Open mode)

- **Sample volume**
  Normal mode: CBC + WBC 3 part differential 20 µL
  Predilution mode- CBC 10 or 20 µL
  Capillary mode: CBC 20 µL

- **Measuring method**
  WBC, RBC and PLT count- Electric impedance method (DynaHelix Flow technology)
  HGB: Colorimetric method
  HCT: Calculated from RBC histogram
  WBC differential: Calculated from WBC histogram

- **Measuring range**
  WBC: 0.00 - 99.99 x 10^3/µL, 0.00 - 299.90 x 10^3/µL (High dilution mode)
  RBC: 0.00 - 9.99 x 10^6/µL
  HGB: 0.00 - 29.90 g/dL
  HCT: 0.0 - 99.9%
  MCV: 20.0 - 199.0 fL
  MCH: 10.0 - 50.0 pg
  MCHC: 10.0 - 50.0 pg
  PLT: 0.0 - 1490.0 x 10^3/µL

- **Data storage capacity:** 50,000 data including histograms in the memory of the analyzer

Reproducibility and Linearity

- **Reproducibility**
  WBC: 2.0% or less (WBC: 4.00 x 10^3/µL or more)
  RBC: 1.5% or less (RBC: 4.00 x 10^6/µL or more)
  HGB: 1.5% or less
  HCT: 1.5% or less
  MCV: 1.0% or less
  MCH: 2.0% or less
  MCHC: 2.0% or less
  PLT: 4.0% or less (PLT: 100.0 x 10^3/µL or more)

- **Linearity**
  WBC: Within ±3.00% or ±0.30 x 10^3/µL (WBC: 0.20 to 99.9 x 10^3/µL)
  RBC: Within ±3.00% or ±0.08 x 10^6/µL (RBC: 0.02 to 8.00 x 10^6/µL)
  HGB: Within ±1.50% or ±0.20 g/dL (HGB: 0.10 to 25.0 g/dL)
  HCT: Within ±3.0% or ±1.0% (HCT: 20.0 to 60.0%)
  PLT: Within ±10.0% or ±20.0 x 10^3/µL (PLT: 10.0 to 1490.0 x 10^3/µL)
  (specifications above apply to normal mode)

Physical Specifications

- **Dimensions:** 230 W x 450 D x 428 H mm
- **Weight:** 20 kg
- **Line voltage:** 100 V to 240 V
- **Line frequency:** 50 or 60 Hz
- **Power input:** 150 VA
- **External output:** LAN x 1, USB x 2, RS-232C x 3

Environmental Conditions

- **Operating temperature:** 15 to 30°C
- **Operating humidity:** 30 to 85%
- **Operating atmospheric pressure:** 700 to 1060 hPa

Reagent

- **Diluent:** Isotonac 3 or Isotonac 4
- **Hemolysing reagent:** Hemolynac 310
- **Detergent:** Cleanac 710, Cleanac 3

NIHON KOHDEN

NIHON KOHDEN CORPORATION
1-31-4 Nishiochiai, Shinjuku-ku, Tokyo 161-8560, Japan
Phone +81 3-5996-8041
https://www.nihonkohden.com/

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