Bioluminescence Live-Cell Imaging system...1
Real-time reporter Assay System...2
Microplate / Single tube Luminometer...3
Ultrahigh sensitive spectrophotometer...4
Food process Monitor...4
Gel Documentation Systems...5
Electrophoresis System...6
Cellgraph is an imaging system designed to detect extremely weak bioluminescent signals from a single cell. In combination with luciferase markers, Cellgraph can visualize the cell dynamics - time dependent changes of transcriptional activities in individual cells and localization to inner cell components (organelles).

Cellgraph provides a variety of advanced features to support live-cell studies; The ultrasensitive cooled and back-illuminated EMCCD (Electron Multiplying CCD) offers single photon sensitivity, certified with a patented procedure to measure total luminescence intensity as photon counts.

The incubation system enables long-term culture under controlled temperature and 5% carbon dioxide gas circulation. The multicolor detection system is equipped for multi reporter assay with up to 2 different color filters(560LP, 620LP), which enhances sensitivity to extra weak bioluminescence and gives an internal standard basis.

The temperature of the 35 mm culture dish can be kept constant at 37 degrees. The capability to continue the culture for an extended period is also made possible because there is an introduction port for CO₂.

*CO₂ gas injection unit is optional accessory.

References


Real-time Reporter Assay System  

AB-2550 Kronos Dio

**Specification**
- **Measurement Container**: 35mm dish
- **Number of Samples**: 8 dishes Max.
- **Temperature**: Peltier device and air circulation
  - room temperature -5°C to 45°C
- **CO₂ Gas**: 5% in density.
  - Control with sensor and regulator
- **Detector**: Photomultiplier Tube
- **Measurement Method**: Photon counting
- **Wave length**: 350nm to 670nm
- **Time**: 1 to 60sec / from 1 to 60 min
- **Filters**: F0 (none), F1 (560nm), F2 (620nm)

**AB-2550 Kronos dio** is luminometer equipped PMT (Photomultiplier Tube) as a detector, and it is suitable for real time monitoring of gene expression in living cell and tissue culture samples over a long period (“real time reporter assay”). Sample container is a 35mm culture dish and up to 8 dishes can be applicable. Long period cultivation under observation can be kept very stably by complete environment (temperature, CO₂ gas and humidity control) with compact built-in incubator. Besides, because an optical filters are built in, it is possible to monitor up to three kinds of gene expression using different luciferases generating different colors luminescence. Representative applications are Real-time Reporter Assay of living cells and Tissue section, Simultaneous monitoring of multiple circadian gene expression, Analysis of RNA expression & Protein transport, Drug stimulation response, Time-dependent profiles of transfection efficiency, Analysis of apoptosis, etc.

A transgenic mouse including luciferase gene with a promoter of clock gene (Per 1) related to circadian rhythm was added with luciferase gene was kept with the period from 06:00 hrs to 18:00 hrs as the light period, and its suprachiasmatic nucleus (SCN) was cut into 300 µm slices using a micro slicer and the slices were placed on culture inserts (Millicell CM) and monitored for 11 days. Extremely stable circadian rhythm was detected.

Data Supported: Dr. Ken-ichi Honma
Dept. of physiology, Hokkaido University Graduate School of Medicine.

---

Data: 20130320_Promus 1
- Measurement time
- Interval
- Condition setting for Kronos 1
- Background processing
- Data: OK, Cancel
- chart: multiple graphs
**Phelios** is a 384/96 microplate luminometer with a multi-color filter system, which enables multi-reporter gene assay using different colors luminescence generating luciferases. Phelios also would offer a wide range of application including ATP assay, ELISA, superoxide detection, and estimation of anti-oxidative activity, etc. in cell biology, physiology, microbiology, food sanitation, environmental assessment, etc.

**Specification**

- **Detector:** Photomultiplier Tube
- **Format:** 96 / 384 well plate format
- **Spectral range:** 350 to 670 nm
- **High sensitivity:** $10^{-21}$ moles luciferase, $10^{-18}$ moles ATP
- **Repeat function:** 0.1 to 60sec/well, Max 168 hours or 1000times
- **One or Two Injectors:** 20 to 250uL
- **Heater temperature range:** Room Temp +5 to 40 degreeC

---

**AB-2270 Luminescencer Octa**

**Specification**

- **Detector:** Photomultiplier Tube
- **Spectral range:** 350 to 670 nm
- **High sensitivity:** $10^{-21}$ moles luciferase, $10^{-18}$ moles ATP
- **Built-in plunger type injectors:** 25 to 300uL
- **Time:** 1-2000 sec (1-600 sec for multicolor assay)

**A single-tube type personal luminometer equipped with a multicolor detection system. A compact body houses a printer and an injection pump.** Easy to operate and applicable to various types of analysis such as ATP assay, measurement of superoxide, antioxidative activity, chemiluminescent enzyme immunoassay, luciferase assay including multi-reporter gene assay using multiple-color luminescence reagents, etc.

---

- **Multi-Colored Luciferase Assay**
- **Three kinds of luciferase are synthesized in proportion to the amount of the transcriptional activity of introduced promoter 1 to 3.**
- **One kind of luminescence substrate is added to three kinds of luciferase. The intensity of each color luminescence proportional to the amount of transcriptional activity of the introduced promoter 1 to 3 measured by color separation.**

- **1.5mL micro tubes & Ф12 x 55mm test tube**
**Ultrahigh sensitive spectrophotometer AB-1850 LumiFLspectrocapture**

A high-spec spectrometer equipped with thermoelectrically cooled CCD to measure luminescence and fluorescence spectra over whole wavelength range simultaneously. LumiFLspectrocapture can detect ultra low intensity light and can be used in studying fluorescence resonance energy transfer (FRET) and bioluminescence resonance energy transfer (BRET).

**Specification**
- Measurement wavelength: 400 to 800nm
- Wavelength resolution: 1.8nm
- Reciprocal linear dispersion: 60nm/mm
- Slit width: 0.01mm - 5mm (11 steps)
- Exposure time: 1/30sec. - 60min
- Repeatability ±0.6nm
- Light receiving part: Electronic cooled CCD

**Sample cell:** Quartz cell or PCR tube
Luminescence sample of cell or protein

**Detection module:** CCD
All wavelength - enable long time exposure

**Filter module**
Diffraction grating (module)

**Food Process Monitor Fermograph / Versa-Logger**

**AF-1101 Fermograph II-W**
Fermograph II monitors volume of gas produced by yeast leavening during bread making process. It can also be used to monitor fermentation process of alcoholic beverage like Japanese Sake, or bio-ethanol. Gas production is related to the fermentation kinetics of the yeast strain, provides some information on characteristics as bread dough quality, freeze-thaw stability, alcohol productivity, etc. of the strain. Fermograph II quantifies the gas volume as total (accumulated) and production rate at a user-set interval, stores the data, and export CSV data for spreadsheet calculation.

**AF-1700 Versa-Logger**
Versa-Logger measures power consumption of a mixer during bread dough mixing. Mixer power consumption is closely related to the rheological change of the sample dough. Data calculating options includes moving average, max and min curves, peak detection, 1st and 2nd differential. Data export to CSV also available.
Ez-Capture is designed to offer a high S/N capture with thermoelectrically cooled CCD, and PC integrated operation with USB connection, which make the analysis workflow simple, fast, and highly cost-effective. Automatic Exposure mode optimizing the luminescent image rapidly and SUM mode integrating extra weak light signals from the sample over long exposure time are available. Fluorescent image can be captured in combination with UV or Visirays - LED illuminator (optional).

EzWestLumi
Chemiluminescent substrate for HRP

CS Analyzer 3 for Windows
CS Analyzer is a versatile image analysis software for electrophoresis patterns. This software can be used not only in combination with ATTO E-graph gel documentation systems and Ez-Capture imaging system, but also with a variety of images of other sources i.e. an image scanner, networks. It can handle various formats of images including 8 bit TIFF/BMP/JPEG or 16 bit TIFF, etc. and provides densitometry measurement of zone/area/spot, normalization of distorted images, image conversion, etc. CS Analyzer is included in Ez-Capture system.

E-Graph is an imaging device equipped with a highly sensitive CCD camera, designed to use with a Windows PC. E-Graph provides simple and quick gel documentation procedure with 14-bit high resolution image data. The sample gel image captured is directly transferred through an USB cable to the connected PC, and analyze it. In live mode, it can adjust and optimize a sample image with iris, zoom and other functions for photographing.

AE-6935B/GS/GL VISIRAYS
VISIRAYS is a LED illuminator to excite fluorescence from proteins/nucleic acids with visible light at blue(B)/green(short-GS)/green (long-GL) region of wavelength.
ATTO Electrophoresis System

Western Blotting Workflow with ATTO product...7
Reagents...8
Precast Gels...9
Electrophoresis Chambers...10
2-D & Agarose Gel Electrophoresis...11
Blotter / Power supply / Auto Stainer...12
Fractionation & Purification System...13
Gel Dryer / Chromatography Product / PeristaPumps...14
Western Blotting Workflow with ATTO product

**Preparation**
- SDS Sample preparation solution Kit
  - AE-1430 EzApply
- Buffer for SDS-PAGE
  - AE-1410 EzRun
  - AE-1412 EzRun C+
- Protein molecular weight marker
  - AE-1440 Ez Standard
  - AE-1450 Ez Standard Prestain Blue

**Electrophoresis**
- Precast Gels
  - e-PAGEl (ATTO mini size 8.5x9cm): 5-20%, 10-20%, 7.5%, 10%, 15%
  - c-PAGEl (ATTO compact size 6x6cm): 5-20%, 10-20%, 7.5%, 10%
- Vertical electrophoresis equipment
  - AE-6530 / WSE-1100 / AE-6500 / AE-7350 / WSE-1020 / WSE-1500
- Power supplies
  - AE-8135 / 8155, WSE-3200 / 3500

**Blotting**
- Western Blotting solution Kit
  - AE-1465 EzFastBlot
- Semidry Blotter
  - WSE-4020 HorizeBLOT 2M-R
  - WSE-4040 HorizeBLOT 4M-R
  - WSE-4110 PoweredBLOT-One
- Power supplies
  - AE-8135 / 8155, WSE-3200 / 3500

**Blocking & Antibody reaction**
- Blocking solution
  - AE-1475 EzBlock Chemi
  - AE-1476 EzBlock BSA
  - AE-1477 EzBlock CAS
- Wash solution (TBS solution)
  - AE-1480 EzWash

**Detection**
- Substrates for HRP
  - AE-1495 EzWestLumi
  - WSE-7120 EzWestLumi plus
  - AE-1490 EzWestBlue
- Cooled CCD Gel Imaging System
  - AE-9300 Ez-Capture MG

**Stripping for reprobing**
- Stripping Reagent
  - WSE-7240 EzReprobe
ATTO reagents bring you a better result and more convenient way in your experiments. Widely applicable and superior quality of reagents offer confidence and advanced application in your process. For western blotting, ATTO reagent supports all your process effectively in all steps.

<table>
<thead>
<tr>
<th>USE</th>
<th>Type</th>
<th>Product Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protein molecular weight marker</td>
<td>AE-1440</td>
<td>EzStandard</td>
</tr>
<tr>
<td>Protein molecular weight marker : 2 bottles</td>
<td>AE-1440-2</td>
<td>EzStandard (2 bottles)</td>
</tr>
<tr>
<td>Prestained protein molecular weight marker</td>
<td>AE-1450</td>
<td>EzStandard PrestainBlue</td>
</tr>
<tr>
<td>SDS sample preparation solution Kit</td>
<td>AE-1430</td>
<td>EzApply</td>
</tr>
<tr>
<td>Sample-extraction, sample preparation solution for 2D electrophoresis</td>
<td>AE-1435</td>
<td>EzApply 2D Kit</td>
</tr>
<tr>
<td>Buffer for SDS-PAGE</td>
<td>AE-1410</td>
<td>EzRun</td>
</tr>
<tr>
<td>Buffer for high resolution SDS-PAGE electrophoresis</td>
<td>AE-1412</td>
<td>EzRunC+</td>
</tr>
<tr>
<td>CBB staining solution (Methanol needless)</td>
<td>AE-1340</td>
<td>EzStain Aqua</td>
</tr>
<tr>
<td>Reverse staining kit</td>
<td>AE-1310</td>
<td>EzStain Reverse</td>
</tr>
<tr>
<td>Silver staining kit</td>
<td>AE-1360</td>
<td>EzStain Silver</td>
</tr>
<tr>
<td>Centrifuge Tube filter Device</td>
<td>AB-1171</td>
<td>ATTOPREP MF</td>
</tr>
<tr>
<td>Anti-crack reagent for gel dry</td>
<td>AE-3780</td>
<td>Anti-Crack</td>
</tr>
<tr>
<td>Western blotting solution kit</td>
<td>AE-1465</td>
<td>EzFastBlot</td>
</tr>
<tr>
<td>Blocking solution (Chemical reagent)</td>
<td>AE-1475</td>
<td>EzBlock Chemi</td>
</tr>
<tr>
<td>Blocking solution (BSA)</td>
<td>AE-1476</td>
<td>EzBlock BSA</td>
</tr>
<tr>
<td>Blocking solution (Casein)</td>
<td>AE-1477</td>
<td>EzBlock CAS</td>
</tr>
<tr>
<td>Blocking solution (Trial all kinds)</td>
<td>AE-1478T</td>
<td>EzBlock TrialKit</td>
</tr>
<tr>
<td>Wash solution (TBS solution)</td>
<td>AE-1480</td>
<td>EzWash</td>
</tr>
<tr>
<td>Coloring Substrate for HRP</td>
<td>AE-1490</td>
<td>EzWestBlue</td>
</tr>
<tr>
<td>Luminescence Substrate for HRP</td>
<td>AE-1495</td>
<td>EzWestLumi</td>
</tr>
<tr>
<td>High-sensitive Luminescence Substrate for HRP</td>
<td>WSE-7120</td>
<td>EzWestLumi plus</td>
</tr>
<tr>
<td>Western Blot stripping buffer</td>
<td>WSE-7240</td>
<td>EzReprobe</td>
</tr>
<tr>
<td>SDS Removal reagent</td>
<td>AE-1390</td>
<td>SDS-eliminant</td>
</tr>
</tbody>
</table>
### Precast Gels

#### Well type

<table>
<thead>
<tr>
<th>Well type</th>
<th>12 wells</th>
<th>14 wells</th>
<th>18 wells</th>
<th>21 wells</th>
<th>2-D (For 2nd dimension)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><img src="image1.png" alt="Image" /></td>
<td><img src="image2.png" alt="Image" /></td>
<td><img src="image3.png" alt="Image" /></td>
<td><img src="image4.png" alt="Image" /></td>
<td><img src="image5.png" alt="Image" /></td>
</tr>
</tbody>
</table>

#### Gel size

<table>
<thead>
<tr>
<th>Type (Code No.)</th>
<th>c-Pagel</th>
<th>e-Pagel</th>
<th>Pagel</th>
<th>Gel concentration (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 wells</td>
<td>14 wells</td>
<td>18 wells</td>
<td>2-D</td>
<td>12 wells</td>
</tr>
<tr>
<td>8 microL/well</td>
<td>No well</td>
<td>24 microL/well</td>
<td>15 microL/well</td>
<td>No well</td>
</tr>
<tr>
<td>C7.5L (2331610)</td>
<td>CD7.5L (2331680)</td>
<td>E-T7.5L (2331800) / E-R7.5L (2331700)</td>
<td>E-D7.5L (2331940)</td>
<td>NPU-5L (2331192)</td>
</tr>
<tr>
<td>C10L (2331620)</td>
<td>CD10L (2331650)</td>
<td>E-T10L (2331810) / E-R10L (2331710)</td>
<td>E-D10L (2331910)</td>
<td>NPU-10L (2331145)</td>
</tr>
<tr>
<td>C12.5L (2331630)</td>
<td>CD12.5L (2331660)</td>
<td>E-T12.5L (2331820) / E-R12.5L (2331720)</td>
<td>E-D12.5L (2331920)</td>
<td>NPU-12.5L (2331146)</td>
</tr>
<tr>
<td>C15L (2331640)</td>
<td>-</td>
<td>E-T15L (2331850) / E-R15L (2331750)</td>
<td>-</td>
<td>NPU-15L (2331148)</td>
</tr>
<tr>
<td>C15S (2331691)</td>
<td>-</td>
<td>E-T15S (2331860) / E-R15S (2331760)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>NPG-310L (2331194)</td>
</tr>
<tr>
<td>C520L (2331600)</td>
<td>CD520L (2331670)</td>
<td>E-T520L (2331830) / E-R520L (2331730)</td>
<td>E-D520L (2331930)</td>
<td>NPG-520L (2331150)</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>SPG-520L (2331120)</td>
</tr>
<tr>
<td>-</td>
<td>E-T1020L (2331840)</td>
<td>E-R1020L (2331740)</td>
<td>-</td>
<td>NPG-1020L (2331122)</td>
</tr>
</tbody>
</table>
ATTO Compact Gel Size chambers

AE-7350 CompactPAGE
Compact-size PAGE system including a power supply. The apparatus body are very compact and easy-to-handle. 
The gel size: 60mm x 60mm x 1 gels
Buffer volume: 90mL
Electrophoresis time: 30 minutes.

AE-7340 Compact PAGE (Twin)
Compact-size PAGE chamber separated from a power supply. 
Gel size: 60 x 60 x 0.75mm x 2 gels
Buffer volume: 140mL
Electrophoresis time: 30 minutes.

AE-7310 Compact Gel Caster
Gels can be easily prepared in the box-shaped main unit. 0.75 mm Compact Multi Gel Cast Including 2 pairs of glass plates, 2 combs, 3 divider plate, and 1 dummy plate. Ready to cast 2 12-well gels.

ATTO Mini Gel Size chambers

WSE-1020 CompactPAGE (Twin-R)
Compact-size PAGE system including a power supply. 
Gel size: 60 x 60 x 0.75 x 2 gels
Buffer volume: 140mL
Electrophoresis time: 30 minutes.

WSE-1100 mPAGE (PageRun-R)
A mini PAGE system with a built-in power supply. High resolution separation of protein and nucleic acid. 
Gel size: 90 x 80 x 1mm x 2 gels
Buffer volume: 500mL

AE-6500 Dual Mini Chamber
High resolution separation of protein and nucleic acid. Minimized smiling with efficient heat dissipation. 
Gel size: 90 x 80 x 1mm x 2 gels
Buffer volume: 340mL

AE-6530 miniPAGE chamber
High resolution separation of protein and nucleic acid. Minimized smiling with efficient heat dissipation. 
Gel size: 90 x 80 x 1mm x 2 gels
Buffer volume: 500mL

Dual Mini Gel Cast
Gels can be easily prepared with a special seal gasket and clips. 2 pairs of glass plates, 2 gaskets, 4 clips, and 2 combs. Ready to cast two 1-mm or 0.75-mm 12-well gels.

ATTO Large Gel Size chambers

AE-6200 Slab EP Chamber
High resolution separation with simple operation. 
Gel size: 138(W) x 130(H) mm x 1 gel
Gel thickness: 0.5 - 2.0 mm
Buffer volume: 650mL

AE-6210 Slab Gel Cast
Easy gel preparation with specially designed parts and seal gaskets. Including a pair of glass plates, a gasket, and a comb, ready to cast a 1 or 2 mm, 12-well gel.

AE-6220 Dual Slab Chamber
High resolution separation with simple operation. 
Gel size: 138(W) x 130(H) mm x 2 gels
Gel thickness: 0.5 - 2.0 mm
Buffer volume: 500mL
**2D-Gel Electrophoresis System**

**WSE-1500 DiscGel EP(DiscRun-R)**
A mini PAGE system with a built-in power supply, agarGEL precast gel and a high level of reproducibility can be obtained 150-210 min. Simplified routines for ensured reliable operation.

**AgarGEL**
1-D precast gels for isoelectric focusing (IEF) and protein 2-D gel electrophoresis. Individual proteins are separated by isoelectric point (pI).

**AE-6310 2D System**
For full-scale proteome analysis (proteomics), purification product confirmation, and protein separation for mass spectrometry.
Gel size: 3.5 mm O.D. x 175 mm (1-D)
200 (W) x 180 (H) x 1.5 (T) mm (2-D)
Applied Sample: a few milligrams (MAX)

**AE-6510 Resolmax Mini Slab**
Temperature controlled PAGE system with buffer circulator (optional).
Upper and lower buffer circulation possible
Gel size: 90 x 80 mm, 0.75 mm in thickness
Number of samples: Up to 12 / gel

**AE-6141 miniQuencer**
Gel sandwich is backed by built-in aluminum heat sink, which is backed by water jacket, built-in and removable.

**Other Types Gel Electrophoresis System**

**AE-6100**
Submerged agarose gel electrophoresis is one of the primary tools for molecular biology, as an easy, economic and efficient technique for separation of nucleic acids as well as analysis of PCR-amplified fragments. UV transparent gel tray for ease of gel viewing. Comb teeth designed to provide sharp band. Buffer recirculation ports to afford recirculation or cooling of buffer to avoid interference in separation.

<table>
<thead>
<tr>
<th>AE-6100</th>
<th>AE-6111</th>
<th>AE-6125</th>
<th>AE-6133</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gel size (W x L)</td>
<td>80x100 mm</td>
<td>120 x160mm</td>
<td>150 x200mm</td>
</tr>
<tr>
<td>Sample Comb</td>
<td>10 wells</td>
<td>26/13 wells (double) (well width 3/6 mm)</td>
<td>32/16 wells (double) (well width 3/6 mm)</td>
</tr>
<tr>
<td>Buffer</td>
<td>300 to 500 mL</td>
<td>700 to 1200 mL</td>
<td>1300 to 1800 mL</td>
</tr>
</tbody>
</table>
Semi-dry Blotting System

WSE-4020 HorizeBLOT 2M-R
Fast and efficient semi-dry blotting apparatus.
2 mini gels are available simultaneously.
Size of electrode: 205 x 100mm

WSE-4040 HorizeBLOT 4M-R
Fast and efficient semi-dry blotting apparatus.
4 mini gels are available simultaneously.
Size of electrode: 205 x 200mm

WSE-4110 PoweredBLOT-One
PoweredBLOT One is semi-dry blotting system with a built-in power supply.
Size of electrode: 95 x 98mm

AE-1465 EzFastBlot
Fast electrophoretic transfer (blots protein onto membrane in 5 to 15 minutes)

Power Supply

AE-8135 myPowerII 300
Small, compact power supply
1 - 300 VDC in 1V steps
1 - 400 mA in 1 mA steps
Automatic crossover
Max output: 50 W
Timer function with alarm
Size: 74x170x170mm

AE-8155 myPowerII 500
Small, compact power supply
1 - 500 VDC in 1V steps
1 - 200 mA in 1 mA steps
Automatic crossover
Max output: 25W
Timer function with alarm
Size: 74x170x170mm

AE-8800 Consta power 3000
Constant voltage, current, or wattage, with automatic crossover
5 - 3000 VDC
1 - 300 mA
1 - 300 W

WSE-3200 PowerStation III
Constant voltage, current or wattage with automatic crossover
10-1000V in 1 V steps
1 - 500 mA in 1 mA steps
1 - 200 W in 1 W steps
Various protection for safety & blackout
23 preset, 21 free set and 10 chain files
Timer and alarm function

WSE-3500 PowerStation HC
Large current output setting, automatic crossover
10 - 150 V in 1 V steps
0.01 - 3.00 A in 10 mA steps
1 - 200 W in 1 W steps
Various protection for safety & blackout
29 preset, 21 free set and 10 chain files
Timer and alarm function

Automatic Gel Stainer

AE-6630 Automatic Gel stainer
For automatic staining of a gel or membrane, programmable with custom protocols:
Polyacrylamide gel with silver staining or reverse staining, western-blot membrane,
and Dot-blot membrane with immuno staining.
Ideal for increasing reproducibility and saving time and labor in your electrophoresis routines.
AE-6760S NATIVEN S / AE-6760L NATIVEN L

NATIVEN is an automatic fractionation system of proteins or nucleic acids based on gel electrophoresis. In this system, automatic fractionation is accomplished by repeating the following processes: electrophoresis, recovery of separated proteins or nucleic acids by air pumping system, and re-filling of recovery solution. The eluted proteins or nucleic acids in the collection part are collected by air pumping system and fractionated into fraction collector. By introducing air pumping system, eliminate the necessity of excess buffer to collect samples, and minimize dilution and contamination.

Fractionated samples

Separate, isolate and recover protein

Chamber parts

Column set

Air

Pump

AB-1650 SupperStat Mini PID
Digital Temperature Controlled cooling Circulator.
Temperature control: -15 to +80 degreeC
Flow rate: Up to 3 L/min.

Fraction Collector

AC-5750 BioCollector
Compact, multi-functional fraction collector. Standardly 150 tubes/case (6mL) can be used, and optionally microplate (96/48/24/12 x 2), 20mL 70 tubes and 50mL 35 tubes are available. Fractionation can be controlled by time or drop counting, delay and standby time, the number of collection cycles.

AC-5700 MicroCollector
Compact, intelligent fraction collector. Standardly 96 tubes (1mL) can be used, and optionally microplate (96/48/24/12), 3.5mL 48 tubes and 9mL 24 tubes are available. Fractionation can be controlled by time or drop counting, delay and standby time, the number of collection cycles.
Gel Dryer

AE-3750 RapiDry / AE-3711 RapiDry mini
RapiDry is a device that dries gel after electrophoresis into a sheet shape in the process of polyacrylamide gel electrophoresis. It dries gel died with pigment to store as a specimen or dries RI labeled samples for RI detection of electrophoresed gel.

Gradient Controller

AC-5900 Gradicon III
Gradient mixer. 10 Gradient pattern, 8 buffer switching mode, and 2 external pumps control units are available. Time: 1–999 min and 250 cycles can be set.

UV Monitor

AC-5100 UV Monitor
UV monitors to measure at 280 or 254 nm. AC-5100 is an economy type monitor featuring 0.0005 AU noise level, 0.0002 AU/h stability, 5 sensitivity ranges.

AC-5200 Mini UV Monitor
UV monitors to measure at 280 or 254 nm. AC-5200 is a high-grade type featuring 0.0002 AU noise level, 0.0005 AU/h stability, 9 sensitivity ranges.

Peristaltic pump / Related product

SJ-1211H Perista Pump
High Flow Rate
Single-Channel
Flow rate: 7 – 700 mL/h
20:1 flow rate variation

AC-2120 Precision Perista Pump
Single channel
0.1 to 1000 mL/h
1000:1 flow rate control

AC-2110 Perista Pump
Single or Dual Channel External Controllable
Flow rate: 10 - 1000 mL/h (one channel)
20:1 flow rate variation

AC-9505 Gradient Mixer
A mixing unit incorporating a 3-way solenoid valve.
110V/230V
73x71x166mm

SJ-1211L Perista Pump
Low Flow Rate
Single-Channel
Flow rate: 0.7 - 70 mL/h
20:1 flow rate variation

Gradicon III One Pump Set
ATTO Corporation
3-2-2 Moto-asakusa, Taito-ku, Tokyo 111-0041, JAPAN
Tel: +81-3-5827-4863 Fax: +81-3-5827-6647
e-mail: eig@atto.co.jp
URL: http://www.atto.co.jp/eng/index.html