High throughput real-time luciferase assay system

**WSL-1565 Kronos HT**

- High throughput live cell realtime reporter assay
- Measuring with temperature and CO₂ controlled incubation chamber
- 24 well plate x 2 or 96 well plate x 2 (option)
- Data display with real-time
- Detectors scan each well, so culture plates don't move.
- Lower noise by PMT cooling
- Dual-color luciferase assay by optical filter auto-changing

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**Code No. Model**

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<thead>
<tr>
<th>Code No.</th>
<th>Model</th>
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<tbody>
<tr>
<td>3510140</td>
<td>WSL-1565 Kronos HT Kronos HT main unit, Control software (for Windows PC), CO₂ gas mixer, Humidifying unit, 24 well plate adapter</td>
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</tbody>
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**Model** | **WSL-1565 Kronos HT**
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Detector | Photomultiplier tube (10°C cooling) x 2 units, X-Y actuating
Measurement | Photon counting method
Measurement time | Integral time: 1 - 60 s/well, Measurement term: 1 h - 30 days
Plate format | Clear bottom 24 well plate x 2 (Standard)
 | Clear bottom 96 well plate x 2 (Option), 35 mm dish x 12 (Option)
Throughput | 48 samples (24 well plate x 2)
 | 192 samples (96 well plate x 2, option)
 | 12 samples (35 mm dish x 12, option)
Incubation temperature control | Room temperature + 5°C to 45°C at room temperature 20 - 28°C
CO₂ gas control | Control to 5% by CO₂ gas mixer
Humidification | Setting of water reservoir in incubator and humidified 5% CO₂ gas flowing intermittently by humidifying unit
 | Maintaining >90%RH
Multi-color assay | Measurement with automatically selected optical filter up to 2 colors
PC requirements | OS: Windows 10 / 8.1 / 7, 64 / 32 bit, Memory: 4 GB, HDD: more than 20 GB free space
 | Interface: USB2.0 x 1 port
Dimensions, Weight | Main unit: 650 (W) x 520 (D) x 340 (H) mm, 40 kg
 | CO₂ gas mixer: 160 (W) x 300 (D) x 200 (H) mm, 4.8 kg
 | Humidifying unit: 170 (W) x 140 (D) x 115 (H) mm, 1.6 kg
Power | Main unit: AC 100 - 240 V, 50 / 60 Hz, 400 W (max)
 | CO₂ gas mixer: AC 100 - 240 V, 50 / 60 Hz, 100 W (max)
 | Humidifying unit: AC 100 - 240 V, 50 / 60 Hz, 24W (max)
**Option**

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<td>3510146</td>
<td>24 well plate adapter</td>
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<tr>
<td>3510147</td>
<td>96 well plate adapter</td>
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<tr>
<td>3510148</td>
<td>35 mm dish adapter</td>
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**Application data**

**Circadian rhythm of clock gene expression**

Transcriptional activity of clock gene, mPer2

mPer2 promoter - Eluc (PEST) expressed fibroblast stable cell line in 24 well clear bottom plate

Measurement time: 5s / well, Interval time: 10min

**Drug response of transcription factor**

Dual-color real-time luciferase assay of TNF-α induced NF-κB transcriptional activity

NF-κB response element - TK promoter - SLG (green color emitted luciferase) and TK promoter - SLR (red color emitted luciferase) expressed fibroblast cell line in 96 well clear bottom plate

Measurement time: 5s x 2 color / well, Interval time: 30min

(A), (B) Transcriptional activity of NF-κB and TK promoter for 48h

(C) Normalized by activity of control (TK)

(D) Ratio to NF-κB activity without TNF-α