

# High throughput real-time luciferase assay system

## WSL-1565 Kronos HT

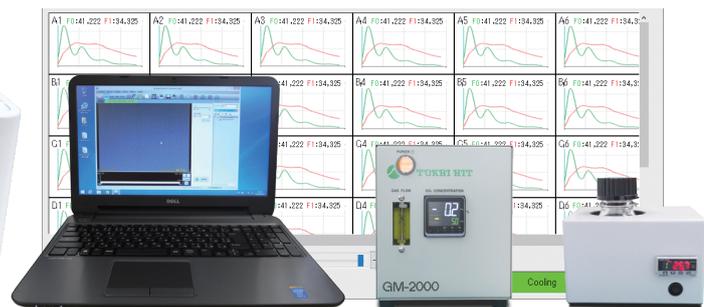
- > High throughput live cell realtime reporter assay
- > Measuring with temperature and CO<sub>2</sub> controlled incubation chamber
- > 24 well plate x 2 or 96 well plate x 2 (option)
- > Data display with real-time
- > Detectors scan each well, so culture plates don't move.
- > Lower noise by PMT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



Code No.	Model
3510140	WSL-1565 Kronos HT Kronos HT main unit, Control software (for Windows PC), CO <sub>2</sub> gas mixer, Humidifying unit, 24 well plate adapter



Kronos HT main unit



Windows PC

 CO<sub>2</sub> gas mixer

Humidifying unit

Model	WSL-1565 Kronos HT
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
CO <sub>2</sub> gas control	Control to 5% by CO <sub>2</sub> gas mixer
Humidification	Setting of water reservoir in incubator and humidified 5% CO <sub>2</sub> 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 CO <sub>2</sub> 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) CO <sub>2</sub> gas mixer: AC 100 - 240 V, 50 / 60 Hz, 100 W (max) Humidifying unit: AC 100 - 240 V, 50 / 60 Hz, 24W (max)

## Option

Code No.	Model
3510146	24 well plate adapter
3510147	96 well plate adapter
3510148	35 mm dish adapter



96 well plate adapter attached

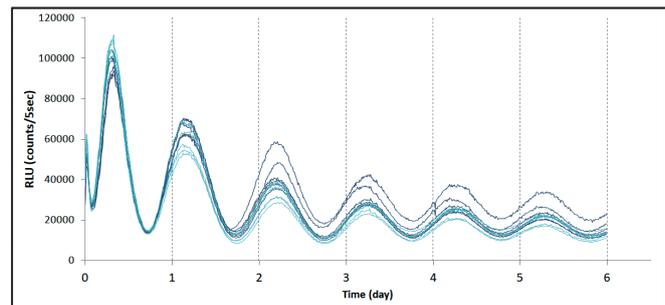
## Application data

### 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- $\alpha$  induced NF- $\kappa$ B transcriptional activity

NF- $\kappa$ B 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- $\kappa$ B and TK promoter for 48h

(C) Normalized by activity of control (TK)

(D) Ratio to NF- $\kappa$ B activity without TNF- $\alpha$

