

# Hot-Plate for Evaluating Thermal Analgesia



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Hot Plate



## Key Features

- Digital set point
- Built-in electronic timer
- Foot switch timing operation
- Computer interface

## Parameters Measured

- Time latency to 'paw licking'
- Time latency to 'jumping'

## Components Included

- Base with heating plate
- Foot switch
- Data transfer software included (SeDaCom)
- Cables and connectors
- Certificate of calibration
- Instruction manual
- Set of spare fuses
- 2 year warranty

## Options

- LE7000 Thermal printer

The LE7406 Hot-Plate performs rapid and precise screening of analgesic drug properties on small-laboratory animals according to the 'hot-plate test'. The animal's pain sensitivity alterations induced by a specific experimental context change and/or genetic manipulations can also be evaluated through this method.

The hot-plate test, initially described by N.B. Eddy and D. Leimbach (1953), evaluates thermal pain reflexes due to footpad contact with a heated surface. During the experiments, the animal is confined in a removable clear acrylic cylinder where the latency time to the first hind paw or/and jumping responses are measured.

In the LE7406 Hot-Plate, a thick aluminum plate (10 mm) provides a high temperature stability and even surface distribution. The plate temperature can be held at a set point between 45 and 62°C ( $\pm 0.1^\circ\text{C}$ ) by multiple proportional feedback circuits that minimize overshoot. A built-in timer activated by an external foot switch allows precise measurement of reaction time (0.1 sec precision). A remote foot-switch controls the test start/stop allowing rapid hands-free experiments. The operator can read the animal reaction time from the display or from a PC computer using the SeDaCom software. Trial number, plate temperature and reaction time are then sent to the PC through a RS-232 port.

## Specifications

Base Dimensions	200 (W) x 300 (D) x 110 (H) mm
Plate Dimensions	200 (D) mm
Cylinder Dimensions	200 (D) x 250 (H) mm
Operating Temperature	45 to 62 degrees Celsius; 0.1 steps
Reaction Time	3 digits, 0.01 sec increment
Material Composition	Clear methacrylate (animal holder), aluminum (plate)
Computer Requirements	PC (Windows® 95, 98, ME, NT, 2000 and Vista)
Maximum Number of Stations	1 per computer (multiple set-ups also available under request)
Power Requirements	110V or 220V, 50/60Hz
Certifications	CE compliant

Order #	Model	Product
PY2 76-0113	LE 7406	Hot-Plate Thermal Analgesia Meter Including SeDaCom Software

Options	Model	Product
PY2 76-0114	LE7000	Thermal Printer

## Citations

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- Grillet N et al. (2005) Generation and characterization of Rgs4 mutant mice. *Mol. Cell. Biol*. 25(10): 4221-4228. (mice, France)

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