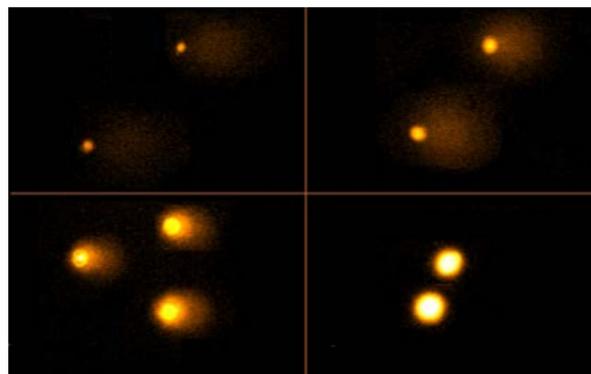


ORDERING INFORMATION	
COMPAC-50	High Throughput Comet system for 50 slides, includes 2x 25-slidecarriers, 4x staining dishes, tank with ceramic cooling platform and cool pack, lid and power cables
COMPAC50-CS300	COMPAC-50 and CS-300V Power Supply 300V, 700mA, 150W
COMRAC-25	Vertical slide carrier for 25 slides, pk/1
STAINDISH	Ebony acrylic stain dish, pk/1
STAINDISH4X	Ebony acrylic stain dish, pk/4
COMPAC-50-PE	Positive electrode
COMPAC-50-NE	Negative electrode
CSL-CAB	Electrophoresis cables (black and red)
Related products	
CS-300V	CS-300V Power Supply 30V, 700mA, 150 W (Pg 87)
CV2	Cleaver Pipette - Volume; 0.2 - 2µl (Pg 112)
CV10	Cleaver Pipette - Volume; 0.5 - 10µl (Pg 112)
CV20	Cleaver Pipette - Volume; 2 - 20µl (Pg 112)
CV100	Cleaver Pipette - Volume; 10 - 100µl (Pg 112)
CS-NRK	Rocking Shaker with 30 x 30cm platform and flat non slip rubber mat (Pg 132)
CSL-NHY-BRIDBASIC	Incubator only with 2 stainless steel shelves - 110/230 (Pg 127)
CSL-LMA50	Agarose 50g, Low melting point (Pg 136)

COMPAC-50 vertical slide carrier & Staining dish



TECHNICAL SPECIFICATION	
COMPAC-50	
Unit Dimensions (WxLxH)	26.5 x 15 x 15cm
Total Slide Capacity	50 slides 25 x 75mm
Slide Capacity per Rack	25
Volume	550 ml
Recommended Running Conditions	27V/450mA for 20 minutes
Recommended Power Supply	CS-300V 300V, 700mA, 150W MIDI



Typical Result

Repair of UVB-induced DNA damage in human keratinocytes, using enzyme-modified comet assay. HaCaT cells were irradiated with 1 J/cm² UVB, then allowed to repair in fresh medium and DNA damage analysed at different time points (A) 0 h, (B) 1 h, (C) 6 h, (D) unirradiated (courtesy of Karbaschi, M. University of Leicester, Leicester, UK).

COMPAC-50 – Experimental Procedure

Overview of a typical comet assay procedure. A single-cell suspension of the cells under investigation is mixed with low melting point agarose. The cell/agarose mix is layered on glass microscope slides, pre-coated with agarose, and the agarose allowed to set. The cells are lysed under high pH before washing with pure water. The presence of strand breaks and high pH allows the cellular DNA to unwind. Electrophoresis draws the DNA out of the nucleoid body forming a 'tail'. The amount of migration (the amount of DNA in the tail versus the head) is proportional to the initial amount of DNA damage. The slides are then drained, neutralised and washed with pure water before drying overnight. Following further washing in pure water the slides are stained, washed and finally scored and analysed, typically using fluorescent microscopy and image analysis software. Advantageously, the use of a slide-holder assembly, which maintains multiple slides in laminar arrangement, also permits batch processing of these slides through pre-electrophoresis and post electrophoresis steps, thus eliminating the need for individual manipulation of samples

FEATURES:

- Unique patent pending design employs two carriers, each capable of accommodating 25 slides in a vertical laminar orientation
- Slide carriers facilitate batch-processing of multiple slides simultaneously, thus eliminating the need for manual handling of individual slides, during pre- and post-electrophoresis steps of the Comet Assay, to maximise processing speed
- Ten staining dishes supplied for batch-treatment of slides during the lysis, neutralisation, staining and washing steps
- Ebony acrylic construction of tank and staining dishes ensures that nuclei remain free of exposure to background light and potential DNA damage
- Highly compact design optimises electrophoresis efficiency during Comet Assay, compared to other manufacturers' systems
- Enhanced cooling is provided by a ceramic cooling platform with spring loaded platform that accommodates low-cost pre-frozen cool packs to maintain optimal buffer temperature
- 50 slides may be run within 20 minutes using CS-300V power supply (p. 87)
- Maximum 50 slide throughput with higher throughput systems to be launched soon
- Supported by a comprehensive publication record, and the technical expertise of our academic partner: the Oxidative Stress Group in the Department of Cancer Studies and Molecular Studies within the University of Leicester



COMPAC-50™ High Throughput Comet Electrophoresis System

Developed in collaboration with the Oxidative Stress Group in the Department of Cancer Studies and Molecular Medicine within the University of Leicester, the COMPAC-50 is a high throughput electrophoresis system, available exclusively through Cleaver Scientific, to perform the Comet Assay, otherwise known as Single Cell Gel Electrophoresis. A unique patent pending design employs two carriers to hold a total of 50 slides (25 per carrier) vertically. This provides two distinct advantages over conventional Comet Assay systems that utilise a horizontal platform for manual mounting of multiple individual slides. Firstly to produce a highly compact system which saves 75% of Lab space. Secondly by holding 25 slides in a rack this allows slides to be processed together in one batch saving on

handling assay time by up to 90%. Consequently, this is not only beneficial for electrophoresis but also in the lysis, neutralisation, staining and washing steps of the Comet Assay, when each batch of slides may be treated during each step respectively using the four ebony acrylic staining dishes supplied. In addition, the COMPAC-50 benefits from a high performance ceramic cooling base with sliding drawer to accommodate a cool pack, which is frozen before use, to maintain optimal buffer temperature.

The COMPAC-50 marks the first of a new range of innovative systems designed specifically for rapid high throughput single cell gel electrophoresis.

A product developed in partnership with



TYPICAL APPLICATIONS

DNA repair, mutagenesis and oxidative stress research. Drug toxicology studies. Food safety testing