

COMET ASSAY

COMET assay tanks are available in three sizes to study single cell gel electrophoresis (SCGE), a technique made popular by drug toxicology and carcinogenesis studies for the detection and quantification of DNA damage in cells.

Each tank's robust construction from black acrylic ensures that cells remain free of exposure to background light and DNA damage during electrophoresis, while a cooled central platform† provides a convenient surface for slide preparation and control of slide temperature during the assay. Following electrophoresis, DNA damage may be measured using Comet Assay scoring software.

HOW IT WORKS

Quantifying DNA damage and repair in drug development applications and Reproductive science.

- Overview: Following genotoxic insult, such as ionizing radiation, the resultant strand breakage of supercoiled duplex DNA reduces the size of the large genomic DNA from which these strands are separated or drawn out by electrophoresis. The genomic DNA then takes on the appearance of a 'comet' as its negatively charged broken ends and fragments migrate towards the anode during electrophoresis.
- Method: After exposure to a genotoxic insult cells are suspended within low melting point agarose and embedded within a thin layer of agarose on a microscope slide. Cellular protein is then removed by lysis in detergent, when DNA is allowed to unwind in alkaline conditions before electrophoresis. The DNA is electrophoresed, stained and then analysed using fluorescent microscopy and imaging software.



- Slide carriers eliminate manual handling, decreasing errors and assay time
- Staining dishes for batch-treatment of slides during the lysis, neutralisation, staining and washing steps
- Black acrylic construction ensures reduced exposure to background light and potential DNA damage

For COMET assay cooling we recommend the CSL-CHILLER. This CHILLER is ready assembled with the thermostat mounted on the refrigerator and supplied with insulated tubing and clips to form a system ready to use. A simple-to-use rotor dial plus two keys provide access to the interactive interface for fast, accurate set-up.

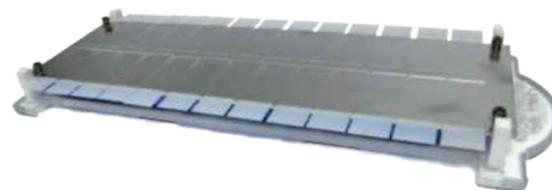
TECHNICAL SPECIFICATIONS			
Temperature range	-25 to 100°C	Pump flow rate	17 L/min (max.)
Stability (water @ 10°C)	± 0.1°C	No. stored temp. values	3
Uniformity (water @ 10°C)	± 0.1°C	Safety over-temperature	adjustable cut-out
Setting resolution	0.1°C	Heater power 230 V	1.3 kW
Display	4 digit LED	Height above tank rim	200mm
Timer function	1min to 99hrs 59mins	Depth below tank rim	135mm



High specification Chiller

	TECHNICAL SPECIFICATIONS		
	CSL-COM10	CSL-COM20	CSL-COM40
SLIDE CAPACITY	10	20	40
UNIT DIMENSIONS (W X L X H)	17x34x9cm	31x34x9cm	33x59x9cm
VOLUME	550ML	1000ML	2100ML

This Chilling Plate is custom designed and manufactured specifically for Comet Assay. The Chilling Plate can accommodate 26 Comet assay slides and assists in the Comet Assay process by allowing a rapid solidification of the low melting point agarose on the Comet Assay slides and facilitates easy retrieval of the slides once the agarose gels are solid.



ORDERING INFORMATION

CSL-COM10*	Comet Assay Tank for 10 Slides	CSL-CHILLPLATE	Chill Plate for 26 Comet Assay Slides
CSL-COM20*	Comet Assay Tank for 20 Slides	COMRAC-25	Vertical Slide carrier for 25 slides, pk/1
CSL-COM40*	Comet Assay Tank for 40 Slides	STAINDISH	Ebony treatment dish, pk/1
CSL-CHILLER†	Chiller Unit for active slide temperature control	STAINDISH4X	Ebony treatment dish, pk/4

* Please note that these units do not include stain dishes or racks; † Chiller is required

† For 110V units add \$ to the order code