

Comet SCGE assay kit

Fast and simple electrophoresis method to measure DNA fragmentation

Exposure of cells to oxidative and environmental stresses frequently results in the breakdown or oxidation of genomic DNA. Assays to evaluate the integrity of genomic DNA, or to assess the presence of oxidized DNA are frequently used as a means of verifying the onset of apoptosis or DNA damage. The Comet SCGE Assay measures DNA damage by fluorescently detecting the integrity of DNA liberated from cells embedded in low melting point agarose. Upon electrophoresis, fragmented DNA produces a characteristic "comet" shaped tail as small DNA fragments migrate in the gel more rapidly than in-tact genomic DNA. The Comet SCGE Assay is a fast and simple electrophoresis method to detect and quantitate DNA fragmentation in cells associated with DNA damage and apoptosis. A unique nucleic acid stain, CYGREEN® Nucleic acid dye, provides improved sensitivity for DNA visualization compared to ethidium bromide.

Citations: 50

[View Online »](#)

Ordering Information

[Order Online »](#)

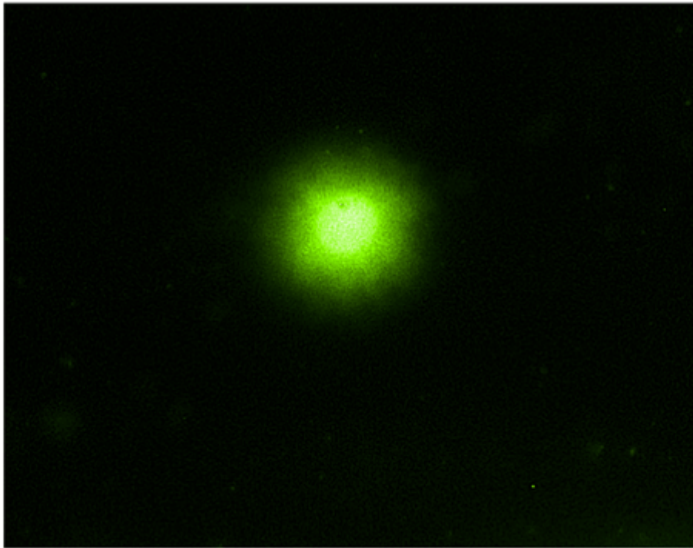
ADI-900-166

50 tests

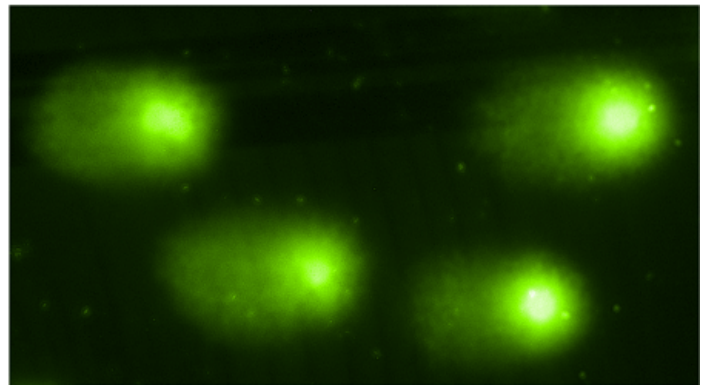
Manuals, SDS & CofA

[View Online »](#)

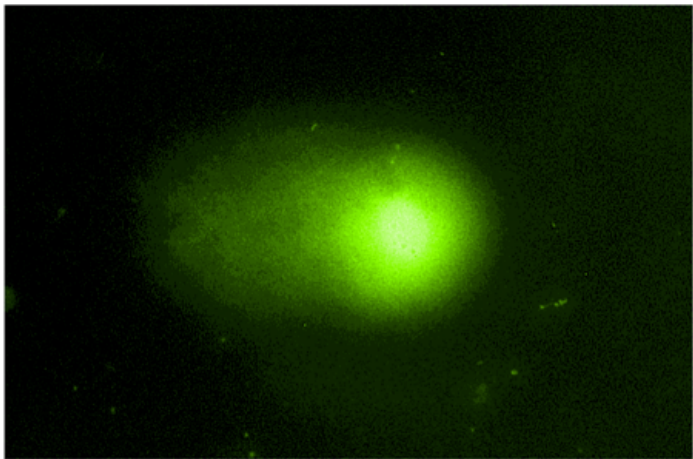
- Ready-to-use Comet Slides allow direct application of sample without pretreatment
- Shorter assay time allows for higher throughput sample analysis
- Hydrophobic barrier allows sample treatment with DNA repair enzymes
- Unique nucleic acid stain provides improved sensitivity for DNA visualization compared to ethidium bromide



Negative control. CaSki cells were untreated. Comet SCGE Assay was performed and slides were imaged using a FITC filter.



Positive control. CaSki cells were treated with 100mM hydrogen peroxide for 20 min at 4°C. Comet SCGE Assay was performed and slides were imaged using a FITC filter.



Positive control. CaSki cells were treated with 100mM hydrogen peroxide for 20 min at 4°C. Comet SCGE Assay was performed and slides were imaged using a FITC filter.

Handling & Storage

Use/Stability Store CYGREEN® Nucleic Acid Dye at -20°C and all other reagents at +4°C.

Long Term Storage +4°C

Shipping Blue Ice

Regulatory Status RUO - Research Use Only

Product Details

Application Fluorescence microscopy

Application Notes For the measurement of DNA Damage, DNA Repair, and Apoptosis in cells and tissue from any species via electrophoresis.

Assay Time 3 hours

Contents Lysis solution, Comet LMAgarose, Comet slide, EDTA, CYGREEN® Nucleic acid dye

Species Reactivity Species independent

Technical Info / Product Notes Please note that CYGREEN® Nucleic acid dye is now included with the Comet SCGE assay kit. Please follow the recommended staining procedures in the updated manual.

Last modified: February 19, 2025



ENZO LIFE SCIENCES,
INC.
Phone: 800.942.0430
[info-
usa@enzolifesciences.com](mailto:info-usa@enzolifesciences.com)

European Sales Office
ENZO LIFE SCIENCES
(ELS) AG
Phone: +41 61 926 8989
[info-
eu@enzolifesciences.com](mailto:info-eu@enzolifesciences.com)

Belgium, The Netherlands
& Luxembourg
Phone: +32 3 466 0420
[info-
be@enzolifesciences.com](mailto:info-be@enzolifesciences.com)

France
Phone: +33 472 440 655
[info-
fr@enzolifesciences.com](mailto:info-fr@enzolifesciences.com)

Germany
Phone: +49 7621 5500 526
[info-
de@enzolifesciences.com](mailto:info-de@enzolifesciences.com)

UK & Ireland
Phone (UK customers):
0845 601 1488
Phone: +44 1392 825900
[info-
uk@enzolifesciences.com](mailto:info-uk@enzolifesciences.com)