

Resource Summary Report

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CASPLab: Comet Assay Software Project Laboratory

RRID:SCR_007249

Type: Tool

Proper Citation

CASPLab: Comet Assay Software Project Laboratory (RRID:SCR_007249)

Resource Information

URL: <http://casp.sourceforge.net>

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Description: CASP is a tool to image analysis in comet assay. CASP has been developed to work with either color, or gray-scale images of fluorescence-stained comets saved in TIF format. In its present version CASP does not control a video or CCD camera. Comets stained with silver (dark cells on white background) must be converted into negative images in order to be analysed correctly. An unlimited number of images can be marked, CASP will load them successively into a image view window (see screenshot). Only comets oriented from left (head) to right (tail) can be analysed correctly. The user can adjust various thresholds of sensitivity and save the adjustments for future use. A measurement frame is drawn on the screen and its size adjusted. The adjustments are frozen to prevent accidental modification. The frame is moved onto a cell and measurement is activated. An intensity profile shows up on a profile window together with selected result values (right window on figure 1) and the result can be saved. In addition to such parameter as head radius, tail length etc, the program calculates the tail moment (TM) and the Olive tail moment (OTM). If several cells are present on the same picture, the user can proceed with the measurement of another cell on the same picture or can load a new picture. The saved results can be visualized during the working session in a spreadsheet in view results window. When measurements are terminated, the results can be exported into a text file and imported into a commercial spreadsheet calculation program. CASP is optimized for a 600x800 resolution. Sponsors: This work has been supported by the University of Wroclaw. Keywords: Comet, Assay, Software, Laboratory, Camera, Negative, Cell, Analysis, Image,

Synonyms: CASPLab

Resource Type: data or information resource, laboratory portal, organization portal, portal, software resource

Resource Name: CASPLab: Comet Assay Software Project Laboratory

Resource ID: SCR_007249

Alternate IDs: nif-0000-30299

Record Creation Time: 20220129T080240+0000

Record Last Update: 20260912T195652+0000

Ratings and Alerts

No rating or validation information has been found for CASPLab: Comet Assay Software Project Laboratory.

No alerts have been found for CASPLab: Comet Assay Software Project Laboratory.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 47 mentions in open access literature.

Listed below are recent publications. The full list is available at [PRECISE-TBI](#) .

Laganà A, et al. (2026) Nanoceria's Silent Threat: Investigating Acute and Sub-Chronic Effects of CeO₂ Nanopowder (?50 nm) on the Human Intestinal Epithelial Cells. *Toxics*, 14(2).

Qi TF, et al. (2025) The lncRNA PARYlator promotes PARP1 activation and resistance to DNA?damaging therapy in esophageal squamous cell carcinoma. *Experimental hematology & oncology*, 15(1), 3.

La Maestra S, et al. (2025) Evaluation of the genotoxic and transformation potential induced by asbestos compared to cleavage fragments. *Scientific reports*, 15(1), 3613.

Luo H, et al. (2025) Interleukin-33 (IL-33) promotes DNA damage-resistance in lung cancer. *Cell death & disease*, 16(1), 274.

La Maestra S, et al. (2025) Microplastics as benzo-a-pyrene carriers: genotoxicity assessment simulating human gastric digestion. *Archives of toxicology*, 99(7), 3023.

Shi W, et al. (2025) Epigynum auritum-Derived Near-Infrared Carbon Dots for Bioimaging and Antimicrobial Applications. *Molecules (Basel, Switzerland)*, 30(2).

Zhang J, et al. (2024) GATA factor TRPS1, a new DNA repair protein, cooperates with reversible PARYlation to promote chemoresistance in patients with breast cancer. *The Journal of biological chemistry*, 300(10), 107780.

La Maestra S, et al. (2024) UVB-Aged Microplastics and Cellular Damage: An in Vitro Study. Archives of environmental contamination and toxicology, 87(1), 48.

Onji H, et al. (2024) Schlafen 11 further sensitizes BRCA-deficient cells to PARP inhibitors through single-strand DNA gap accumulation behind replication forks. Oncogene, 43(32), 2475.

Lu X, et al. (2024) Targeting the cGAS-STING Pathway Inhibits Peripheral T-cell Lymphoma Progression and Enhances the Chemotherapeutic Efficacy. Advanced science (Weinheim, Baden-Wurttemberg, Germany), 11(10), e2306092.

Liu T, et al. (2024) Molecular basis of CX-5461-induced DNA damage response in primary vascular smooth muscle cells. Heliyon, 10(17), e37227.

Acar A, et al. (2023) Monitoring genotoxic, biochemical and morphotoxic potential of penoxsulam and the protective role of European blueberry (*Vaccinium myrtillus* L.) extract. Scientific reports, 13(1), 6787.

Tafurt-Cardona Y, et al. (2023) Toxic effects of Arianor Ebony hair dye on human cells. Brazilian journal of medical and biological research = Revista brasileira de pesquisas medicas e biologicas, 56, e12777.

Macar O, et al. (2023) Assessing the combined toxic effects of metaldehyde molluscicide. Scientific reports, 13(1), 4888.

Izumi T, et al. (2023) Copy Number Variation That Influences the Ionizing Radiation Sensitivity of Oral Squamous Cell Carcinoma. Cells, 12(20).

Zhao R, et al. (2023) Nuclear ATR lysine-tyrosylation protects against heart failure by activating DNA damage response. Cell reports, 42(4), 112400.

Kudo KI, et al. (2022) ?Np63? transcriptionally represses p53 target genes involved in the radiation-induced DNA damage response : ?Np63? may cause genomic instability in epithelial stem cells. Radiation oncology (London, England), 17(1), 183.

Acar A, et al. (2022) Assessment of the ameliorative effect of curcumin on pendimethalin-induced genetic and biochemical toxicity. Scientific reports, 12(1), 2195.

Georgiou M, et al. (2022) ATR and CDK4/6 inhibition target the growth of methotrexate-resistant choriocarcinoma. Oncogene, 41(18), 2540.

Onur B, et al. (2022) Paraquat toxicity in different cell types of Swiss albino mice. Scientific reports, 12(1), 4818.