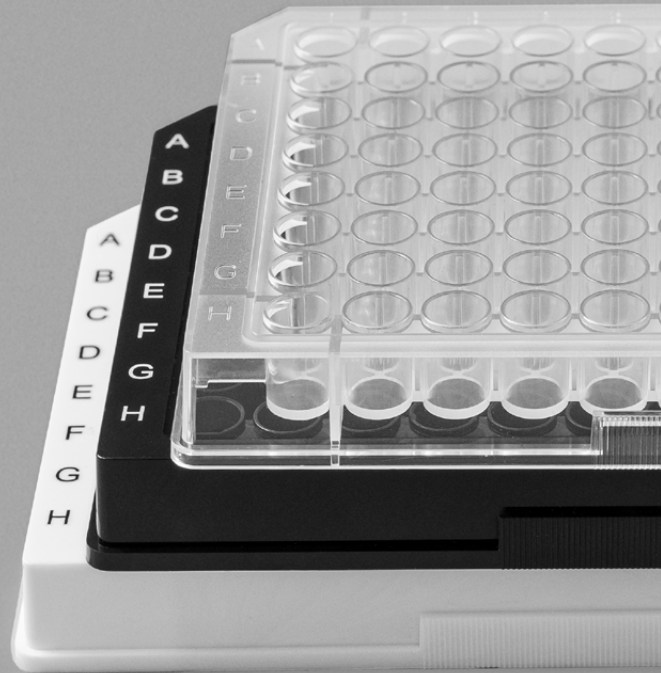
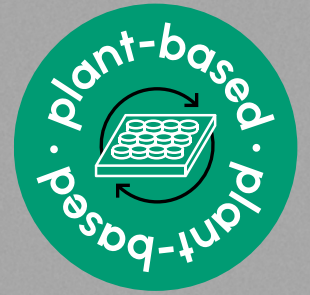
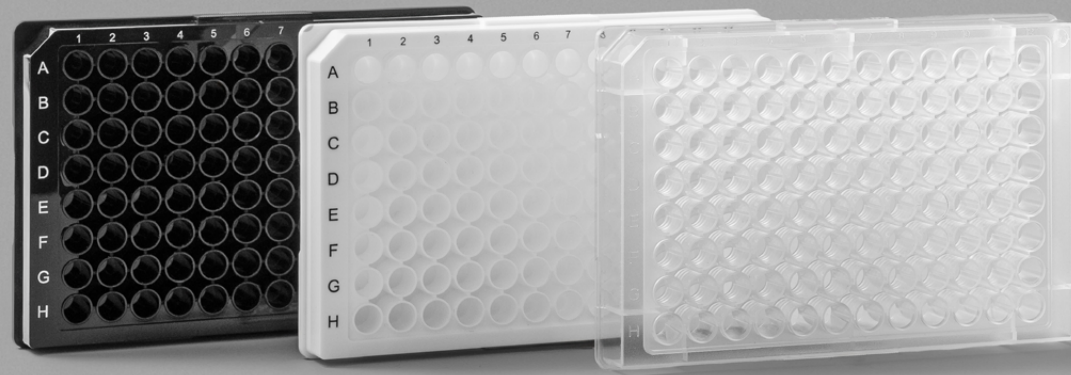


Green Elephant® 96-well microPLAte

clear | black | white

High performance microplates,
made from bioplastic.





Change your plates — not the climate!

Say hello to the Green Elephant® 96-well microPLAte, a high performance microtiter plate made from the bioplastic polylactic acid (PLA). This plate aligns quality and performance with your sustainability principles. Available in a clear, black, and white version.

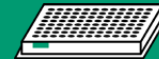
There's only one thing that changes: your lab's carbon footprint.

Meet the microPLAtes

Green Elephant® 96-well microPLAtes

Flat-bottom, 96-well microplates made from bioplastic

- Compatible with leading robotics, plate readers, and standard laboratory equipment
- Manufactured in Germany, available worldwide through direct and distributor sales
- Suitable for colorimetric, luminescence- and fluorescence-based assays, immunoassays, imaging, and quantifications.



Standard size

Available in clear, black, and white with F-bottom, meeting Standards ANSI/SLAS 1-2004 through ANSI/SLAS 4-2004.



Great performance

Same high performance in your standard assays, making a sustainable switch easy.



Made from bioplastic

Derived from fermented corn starch and polymerized into a bioplastic, our microPLAtes are manufactured from a renewable resource.



Saves 220 g CO₂ per plate vs PS

MicroPLAtes have a 50% lower environmental impact compared to polystyrene plates.

Ditch the oil plastic polystyrene (PS) plates and embrace plant-based bioplastic polylactic acid (PLA) microPLAtes

✓ High performance in your lab

- Standard size, great performance, just made of bioplastics
- Great chemical resistance and long-term storage stability
- Simple swap for a wide range of applications including colorimetric, luminescence- and fluorescence-based assays, immunoassays, imaging, and quantifications

✓ Better for the environment

- Made from the plant-based bioplastic polylactic acid (PLA)
- 50% reduction in environmental impact
- Disposed of like normal to release the CO₂ that was originally captured by the corn
- Helps your lab reach its sustainability targets

Technical performance

Green Elephant® 96-well microPLAtes are made from injection molded PLA in Germany.

Design

- MicroPLAtes meet Standards ANSI/SLAS 1-2004 through ANSI/SLAS 4-2004
- Made from 100% plant-based material
- Weight: 49 g per plate
- Width: 85.18 mm, Length 127.76 mm, Height 14.35 mm

Performance

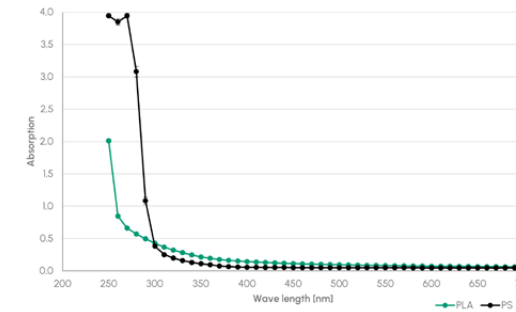
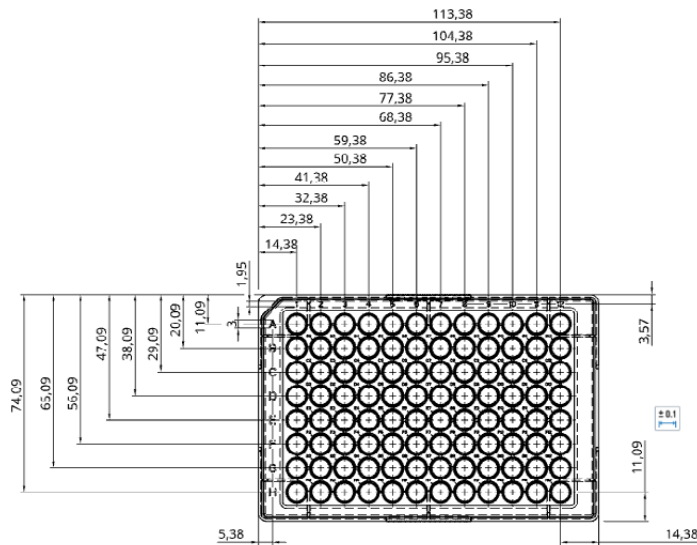
- Theoretical total volume: 372 µL/well
- Working volume: 50 – 200 µL/well
- Material: ≥98 % polylactic acid
- Color: Clear, black, white
- Temperature range: - 80 °C to 40 °C
- Storage: Room temperature, sunlight protected
- Centrifugability: Yes, up to 4000 xg
- Autoclavability: No
- Certificates: Endotoxin-free, non-cytotoxic, free of animal contents, human DNA, DNase-, and RNase-free

Logistics

- Packing unit: 25 pieces per bag; 100 pieces per case
- Packaging dimension (100 pcs): 410 x 350 x 270 mm
- Shelf life: 24 months

Quality

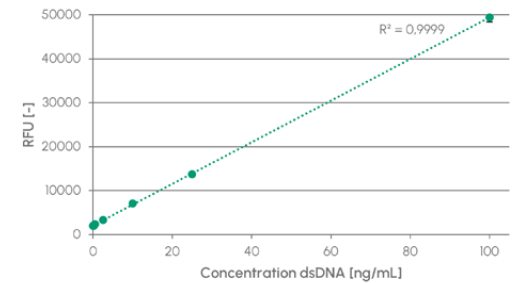
- Products undergo continuous quality controls regarding function, precision, and reproducibility
- ISO 9001:2015-09 certified QMS
- Traceability to production is ensured through a standardized lot-number system
- Manufactured in Germany



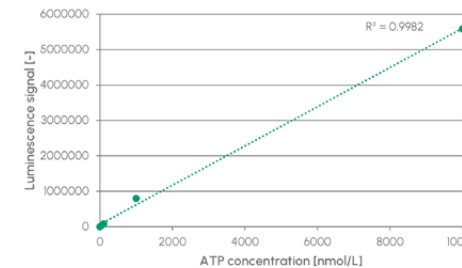
Comparison of the absorption spectra of the PS and PLA 96-well plates.

Fluorescence assay performance | black

Black 96-well microPLAtes minimize optical crosstalk for precise fluorescence measurements, delivering a highly linear response even at low analyte levels with strong signal-to-noise and low variability. Resistant to typical buffer and solvent conditions, they support robust performance in DNA quantification, fluorescent reporter assays, and high-throughput screening workflows while offering a more sustainable material solution.



Fluorescence signals of the different dsDNA concentrations [ng/mL] in the black 96-well PLA plate. The linear trend line, including the coefficient of determination (R²), is also shown. n=3



Luminescence signal of the different ATP concentrations [nmol/L] in the white 96-well PLA plate. The linear trend line, including the coefficient of determination (R²), is also shown. n=3

Colorimetric assay performance | clear

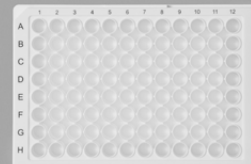
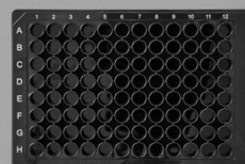
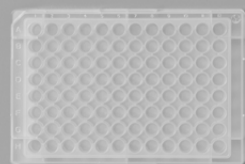
Clear 96-well microPLAtes provide low background signal and minimal autofluorescence, enabling reliable absorbance and imaging readouts. Protein and DNA adhesion are comparable to standard PS plates, supporting consistent assay performance. With stability from -80 °C to +40 °C and resistance to common laboratory solvents, it suits ELISA, colorimetric assays, and general sample handling.

Luminescence assay performance | white

White 96-well microPLAtes enhance luminescent signal capture and reflection, enabling sensitive detection across a broad dynamic range with consistently low variability. Chemically stable under standard assay conditions and temperature-resistant for routine workflows, they perform reliably in ATP-based cell viability assays, enzyme kinetics, and luminescent reporter systems requiring reproducible and quantitative readouts.

Thousands of applications

You bring the science. **We bring sustainable plates.**



- ✓ Colorimetric cell viability & enzyme activity assays
- ✓ ELISA & immunoassays
- ✓ Nucleic acid & protein quantification, nucleic acid purification
- ✓ Metabolic substrate quantification
- ✓ Cell & colony visualization and imaging
- ✓ Sample dilution, flow cytometry sample prep, PCR prep
- ✓ Cell dilution and staining (trypan blue)
- ✓ Fluorescent viability & enzyme activity assays
- ✓ Fluorescent DNA/RNA quantification
- ✓ Fluorescent ROS, membrane potential & ion flux studies
- ✓ Fluorescent reporter gene systems & protein tags
- ✓ Fluorescent intracellular pH & environment probes
- ✓ Luminescent cell viability & enzyme activity assays
- ✓ Chemiluminescent assays
- ✓ Luminescent ADME/mechanism of action studies
- ✓ Luminescent apoptosis, necrosis & cell health pathways
- ✓ Luminescent ROS, inflammation & receptor binding/protein-protein interaction studies

And compatible with your lab equipment

MicroPLates work just like standard plates in appropriate laboratory instruments and robotics. Find all devices tested for fit in our [Compatible Devices](#) list.



Manufacturing quality

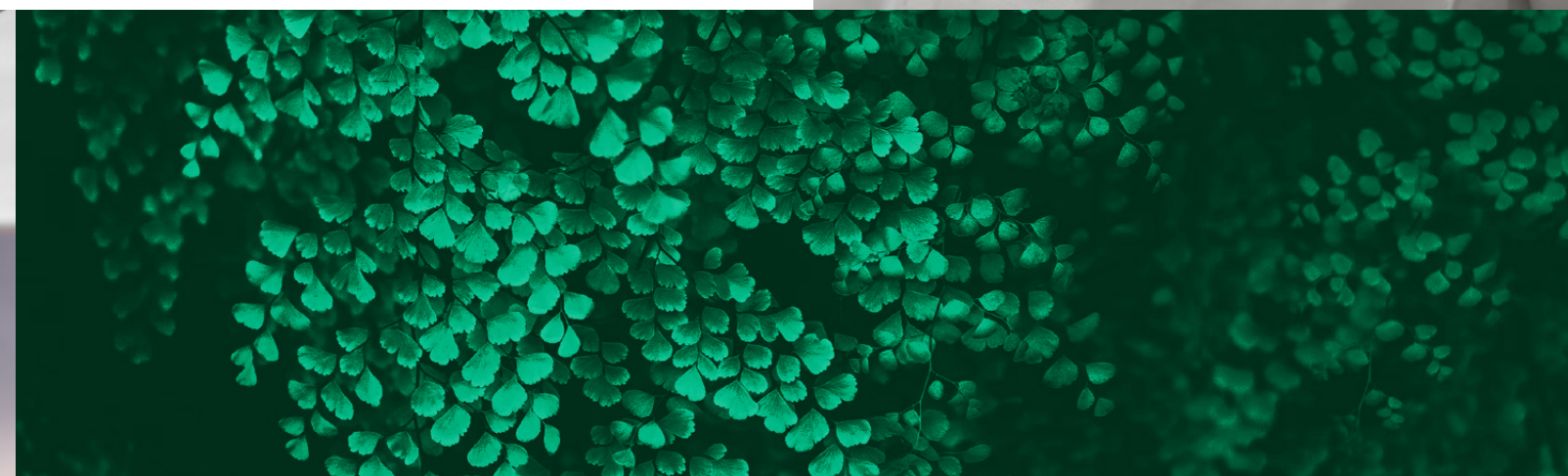
Quality made in Germany. ISO certified, with qualitative and functional testing to meet industry standards.

Manufactured in Germany: Green Elephant Biotech certifies that the product has been manufactured in accordance to established manufacturing guidelines and product specifications.

ISO certification: Green Elephant Biotech's quality management system is certified according to ISO 9001:2015-09.

Functional testing: Products undergo continuous quality controls regarding function, precision, and reproducibility. Dimensional checks, transparency, and testing of precision and accuracy are part of Green Elephant Biotech's quality assurance standards.

Biocompatibility testing: Biological testing procedures ensure that the product is free of endotoxins ($< 2 \text{ pg}/\mu\text{L}$), DNase (DNA Digestion, LOD: $< 10^6$ Kunitz-Units) and RNase (RNA Digestion, LOD: $< 10^9$ Kunitz-Units). Testing is conducted by an independent, EN ISO/ IEC 17025-accredited laboratory.

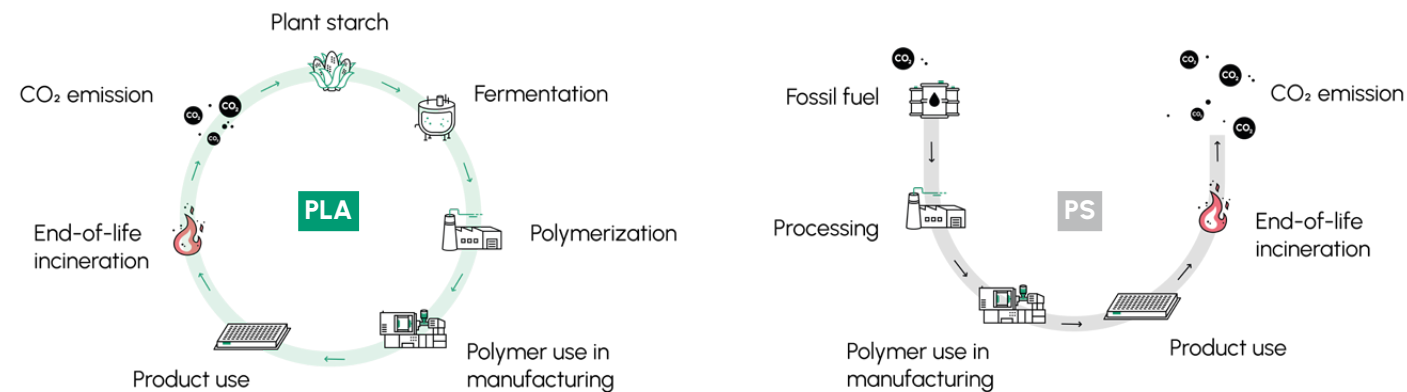


Halving your carbon emissions: Well played, PLA.

PLA (polylactic acid) transforms your 96-well plate into an eco-friendly alternative with significantly lower carbon footprint than conventional polystyrene plates made from oil. **Derived from renewable resources** such as corn and sugarcane, PLA is produced by fermenting plant sugars into lactic acid and polymerizing them into a durable, high-performance bioplastic.

Because plants absorb CO₂ as they grow, the result is a material with dramatically reduced environmental impact. While polystyrene is based on the depletion of fossil oil reserves, PLA resembles a regrowing, renewable resource.

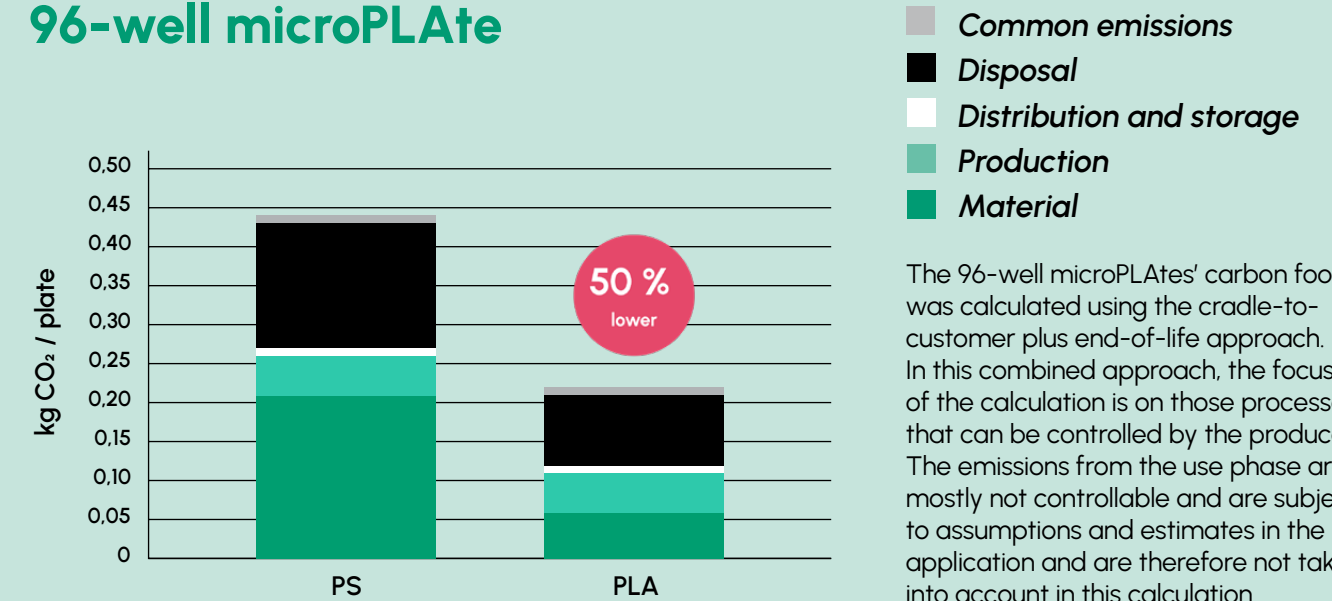
In fact, the Green Elephant® 96-well microPLAte **reduces CO₂ emissions by 50%** compared to a traditional polystyrene plate — without compromising assay performance or usability.



PLA begins with plant starch sourced from crops that absorb CO₂ as they grow. The starch is fermented and polymerized into PLA, which is then processed into products through injection molding or 3D printing. After use, the product may be incinerated, releasing CO₂ back into the atmosphere — but this carbon can be reabsorbed by the next generation of crops, forming a renewable and circular carbon cycle.

Polystyrene is derived from fossil oil, a finite resource. The oil is refined and chemically processed into styrene monomers, which are polymerized to form PS and manufactured into products via injection molding. After product use, end-of-life incineration releases CO₂ that reenters the natural carbon cycle, but the original carbon source is depleted rather than renewed — resulting in a linear, non-regenerative resource pathway.

Product carbon footprint of one 96-well microPLAte



The 96-well microPLAte's carbon footprint was calculated using the cradle-to-customer plus end-of-life approach. In this combined approach, the focus of the calculation is on those processes that can be controlled by the producer. The emissions from the use phase are mostly not controllable and are subject to assumptions and estimates in the application and are therefore not taken into account in this calculation.

How microPLAte can support your sustainability targets



Sustainable procurement: Our sustainability approach covers materials, manufacturing, and circularity. Learn how we reduce environmental impact across the full product lifecycle. [Scan to visit page.](#)



Blog articles: Explore articles on PLA, renewable materials, the EU Green Deal, and the future of sustainable labware and bioprocess workflows. [Scan to read blog posts.](#)



Full LCA: We provide a detailed Life Cycle Assessment showing environmental performance compared to conventional lab plastics. Available on request. [Scan to send an email to info@greenebt.com.](#)

How to make the change?

Swapping your lab from oil-based plastic microplates to bioplastic microPLAtes couldn't be simpler — and it helps the planet. Bioplastic microPLAtes require no changes to equipment, workflows, or assay protocols: They are directly compatible with standard plate readers, automation systems, and robotics. You simply replace the box on the shelf — and immediately reduce your environmental footprint.



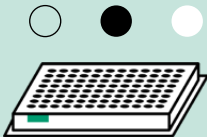
Where to start? Get a Sample Pack.

We get it — you want to test before you decide. That's why we made it easy to see how our bioplastic microPLAtes perform in your lab.

The contents

Choose your color and try it out: each Sample Pack comes with three bioplastic microPLAtes (clear, black, or white) and some fun stickers. So get started and tell us how it goes!

3x



+



Join the herd

Become part of the herd by signing up for our Trial Program and ordering your Sample Pack.



Order Sample Pack

Like what you saw? Let's go larger!

- ✓ Want microPLAtes in your storage room? Yes, we can supply them by the pallet.
- ✓ Want to buy in volume but not pay more than you are currently paying? Ask us about our volume price match program.

96-well microPLAtes	Product code	Product name	Pack
Sample Pack, clear	GEB-3WP96FBT	Green Elephant® 96-well microPLAtes, clear, f-bottom, 3 pcs	3
25-piece Pack, clear	GEB-25WP96FBT	Green Elephant® 96-well microPLAtes, clear, f-bottom, 25 pcs	25
100-piece Pack, clear	GEB-WP96FBT	Green Elephant® 96-well microPLAtes, clear, f-bottom, 100 pcs	100
Sample Pack, black	GEB-3WP96FBB	Green Elephant® 96-well microPLAtes, black, f-bottom, 3 pcs	3
25-piece Pack, black	GEB-25WP96FBB	Green Elephant® 96-well microPLAtes, black, f-bottom, 25 pcs	25
100-piece Pack, black	GEB-WP96FBB	Green Elephant® 96-well microPLAtes, black, f-bottom, 100 pcs	100
Sample Pack, white	GEB-3WP96FBW	Green Elephant® 96-well microPLAtes, white, f-bottom, 3 pcs	3
25-piece Pack, white	GEB-25WP96FBW	Green Elephant® 96-well microPLAtes, white, f-bottom, 25 pcs	25
100-piece Pack, white	GEB-WP96FBW	Green Elephant® 96-well microPLAtes, white, f-bottom, 100 pcs	100

From us to you

Whether you order directly, through your local distributor, or via your internal procurement system, we make it simple. And if you need guidance, we're always happy to help you find the perfect fit for your experiments.

Packing unit: 1 case = 4 bags of 25 plates

Packing dimensions: 410x350x270 mm

Shelf life: 24 months



Order directly from us



Order through your local distributor

About



Green Elephant Biotech was founded with two driving forces: making advanced therapies more accessible by changing how cells are manufactured, and making the life sciences industry more sustainable.

Our flagship product, the **CellScrew®**, is a compact, 3D-printed system that expands adherent cells at scale, providing more than 100x the growth surface of a T-75 flask while reducing incubator footprint by over 90%. Built for Cell and Gene Therapies, vaccines, and biologics, it enables efficient scale-up of adherent cell production processes from research to clinical manufacturing.

At the same time, we apply plant-based bioplastics to traditional labware, such as the **Green Elephant® microPLAte** — a 96-well plate that delivers high performance with 50% less environmental impact.

Founded in 2021 as a University spin-off, Green Elephant Biotech operates from Berlin and Giessen with a growing international team.



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www.greenelephantbiotech.com
info@greenebt.com

Follow the herd

Become part of the Green Elephant® community for environmental and scientific fact-packs, and support the journey towards more sustainable workflows.



Check on your socials for
#jointheherd
#greenelephantbiotech