

Biolistic Transformation System

1. Make of equipment: BioRad, USA

Model: PDS-1000/He™ System



Specification:

| | |
|--------------------------|--|
| Dimensions (W x D x H) | 29 x 25.5 x 47.5 cm |
| Construction | Aluminum, ABS plastic, and acrylic chassis |
| Weight | 15 kg |
| Electrical input voltage | 100–120 VAC, 50–60 Hz |
| Maximum current | <5 A |
| Mechanical | |

| | |
|----------------------|---|
| Fuse | 6.3 A, 250 V, 5 x 20 mm |
| Vacuum | <0.4 inches mercury/min leakage |
| Overpressure | 0.5 psi relief valve, self-resetting |
| Environmental | |
| Operating | Temperature: 0–35°C (32–95°F) Humidity: 0–95% noncondensing |
| Storage | Temperature: 0–70°C (32–158°F) Humidity: 0–95% noncondensing |

About the equipment:

Biolistic technology, also called particle bombardment, is a direct physical method of introducing nucleic acids into cells. Nucleic acids or other biological molecules are coated onto high-density gold or tungsten microparticles (microcarriers), which are then accelerated to high velocity by a helium pulse and driven through cell walls and membranes into the target. The physical nature of this technology makes it extremely versatile and easy to use. It can be applied to a wide range of targets, including cell cultures, tissues, organs, plants, animals, and bacteria, as well as organelles.

Type of analysis possible:

1. A reproducible method for transforming intact cells in culture, requiring little manipulation of cells
2. Transformation of cells with unique growth requirements that are not amenable to other methods of transfection
3. Single or multiple gene transfer in plants, animals, microbes and organelles