

New Whatman® EasyClone 384™

The room temperature
multiwell clone
archiving solution.

Every once in a while a product comes along that delivers a quantum leap forward in lab efficiency. The new Whatman EasyClone 384™ plate is just such a product—a revolutionary new way to back up, store and process your clones. Designed to fit in industry-standard SBS automation systems, the EasyClone 384 plate provides the fastest, easiest, most cost-efficient method of archiving and analyzing your clone libraries. By incorporating patented Whatman FTA® technology, clones inserted into the wells are stabilized instantly. Clones can then be stored and shipped safely at room temperature, eliminating the need for bulky freezers and expensive cold shipping.

Features and Benefits

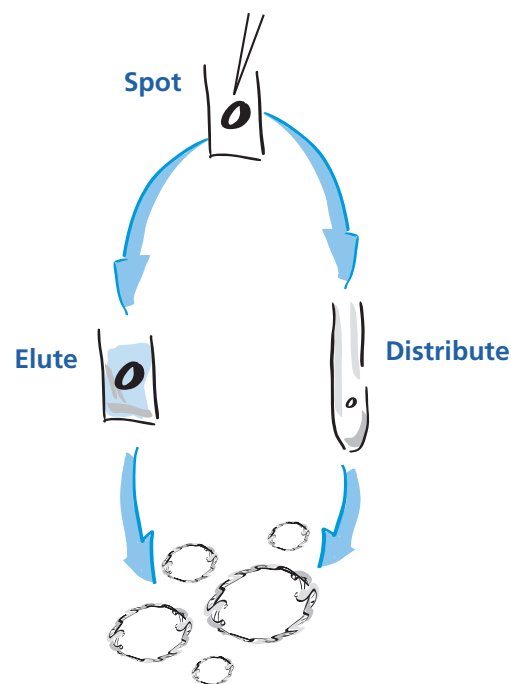
- **Archive for years** Store for years at room temperature without degradation.
- **Compatible with SBS handling systems** Fits seamlessly into industry-standard automated systems.
- **Easily distribute clones** Remove desired FTA disk and mail. No growth or dry ice required.
- **Provides multiple samples** Retrieve clone samples from the same well up to five times.
- **Cost-effective** Eliminates the need for costly freezers and back-up power.
- **High-quality DNA** Large sample amounts fully saturate the FTA paper, producing high-quality DNA samples.
- **Eliminates crosstalk** Individual wells prevent crosstalk between samples.
- **Quick and easy purification** Clones are ready for analysis in minutes. Simply punch out a paper sample or process in the well.
- **Protects against phage infection** FTA inactivates phage to protect against infection, and can “rescue” infected host cells.

Applications

- Clone storage and distribution
- Genomics research



Three easy steps to clone recovery



Whatman®

PROTOCOL

Plate Application	Protocol
Library Backup	Spot 10 μL of overnight culture or glycerol to each well and store at room temperature for disaster recovery.
Clone Distribution	Once sample is applied to plate, simply push FTA through foil bottom into appropriate tube—clone orders can be fulfilled same-day. Customer recovers purified sample in minutes using traditional FTA methods.
Clone Processing	Clones applied to EasyClone 384 plate can be accessed by adding a small volume of mild TE buffer to suspend the plasmid and using 1–2 μL for analysis. The remaining suspension is dried back down for subsequent use.

TYPICAL DATA

Use each well multiple times

Each well of the EasyClone 384 plate can be accessed up to five times for analysis or repopulation. The data below compares recovery via transformation following the first well-hydration to the recovery following the fifth hydration.

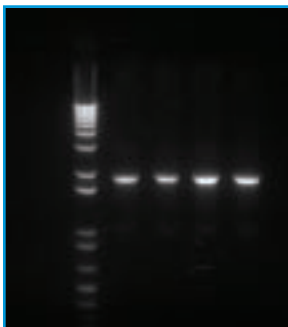
Transformation Method	After 1 st Hydration		After 5 th Hydration	
	Transformants/Reaction	Transformation Efficiency	Transformants/Reaction	Transformation Efficiency
Electroporation of electro-competent DH5 α using pGEM-luc	3.63×10^5	1.01×10^{10}	3.36×10^5	1.10×10^{10}
Heat shock of chemically competent DH5 α using pGEM-luc	1.32×10^4	1.26×10^9	3.05×10^4	2.51×10^9

Sample protection

Even after four hydration/drying cycles, EasyClone 384 protects clone samples at room temperature. To stress the protective capabilities, clone samples were accessed four times and then stored at 37°C and 60% relative humidity for five days. These samples were then stored at room temperature for 15 days before being used to transform competent cells. These results are compared to samples not stored at heat and humidity.

Transformation Method	Room Temperature Transformants/Reaction	Heat (37°C) Transformants/Reaction	Transformation Efficiency
Electroporation of electro-competent DH5 α using pGEM-luc	4.63×10^5	4.15×10^5	9.53×10^9
Heat shock of chemically competent DH5 α using pGEM-luc	1.87×10^4	1.97×10^4	1.70×10^9

PCR ANALYSIS

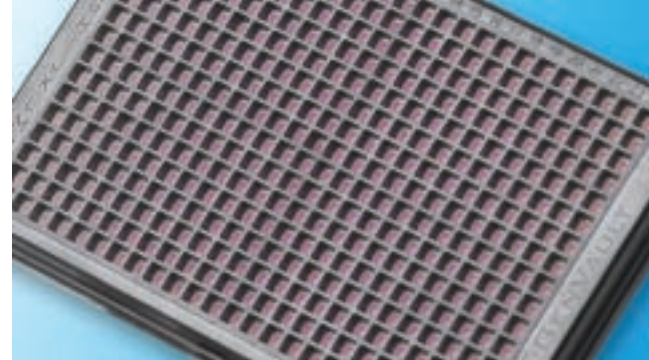


1 2 3 4 5 6

EasyClone 384 can be used for samples analyzed via PCR as well. Lanes 3-6 in the gel to left represent pGEM-luc plasmid stored in an EasyClone 384 plate for three weeks and amplified using standard SP6/T7 cloning primers (1652bp). Lane 1 represents the negative control and lane 2 contains 1kb ladder. (Note: plasmid recovered from plate via TE⁻¹ hydrations may require brief purification or PCR additives for successful amplification.)

WHATMAN CATALOG ORDERING INFORMATION

Whatman Catalog Number	Product	Quantity/Case
WB120069	EasyClone 384 plates	50



Whatman Quality

Whatman is a global leader in separations technology and is known in the scientific community for providing innovative Life Science products and solutions. Our instinct for simplification accelerates the rate of discovery, reduces costs and saves time. For more information, visit www.whatman.com.

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