

Thermo Scientific HyClone[®] Rapid Response Production[™]

Understanding *Time is Money*

Thermo Scientific HyClone **Rapid Response Production (RRP)** Service can facilitate your research, product and process development.

When you need small volumes of customized products quickly, call on our **RRP** Service. We can typically manufacture *within 7 days of your order*.

RRP follows reproducible manufacturing practices for customized quick-turn HyClone Media, Supplements and Reagents packaged in bottles or Thermo Scientific HyClone BPC[®]s. Dry powder media and reagents are also available.

Rapid Response Production Facility

Rapid Response Production (RRP) service provides customers quick-turn production of Thermo Scientific HyClone Cell Culture Media and Reagents for research, product and process development.

Development of industrial cell culture processes frequently requires quick evaluation of customized or optimized media and buffers to facilitate final product selection and implementation. In research settings, minor modifications of existing media and reagent formulations may be necessary to accomplish specific goals and objectives.

Rapid Response Production is a manufacturing service designed for the production of client-specific HyClone Media and Reagents with short turnaround times. Requests are typically manufactured within 7 days. The RRP facility is capable of preparing up to 200 L liquid lot sizes and up to 20 kg dry powdered lot sizes. Liquid lots are packaged in 100, 500 and 1000 mL bottles, or in BPCs (200 L maximum). Dry powdered lots are packaged in volume-specific bottles, in bulk containers or using the Thermo Scientific HyClone Powdertainer.

The RRP facility offers the highest quality products by following consistent and reproducible manufacturing practices. Documentation of RRP lots is designed to provide component-specific tracking, and to facilitate technical transfer to our cGMP manufacturing facility when requested.

Quality Control

Available quality control tests for RRP liquid lots:

- Sterility
- Endotoxin
- pH
- Appearance
- Osmolality

Available quality control tests for RRP dry powdered lots:

- Solubility
- pH
- Moisture
- Osmolality
- Particle Size

Format	Delivery System	Lot Sizes
Liquid	100 mL Bottles	10-20 L
Liquid	500 mL Bottles	10-100 L
Liquid	1000 mL Bottles	10-200 L
Liquid	5 - 200 L BPCs	10-200 L

Format	Packaging	Lot Sizes
Dry Powdered	Volume-Specific (L)	500 g-20 kg
Dry Powdered	Bulk Powder	500 g-20 kg



Delivery Systems

A wide range of standard packaging sizes and delivery systems to meet specific product requirements are offered. In addition, custom packaging is also available.

Production Parameters

Rapid Response Production is operated in a facility with stringent access and operational restrictions. Personnel are trained in accordance with established manufacturing practices, and can utilize single-contact, animal derived component free manufacturing equipment or facilities as requested. Standard quality control tests, such as sterility, pH and endotoxin for liquid products and solubility, moisture and particle size for powdered products are available to confirm or establish production specifications. Additional testing is available upon request.

Raw Materials

The components used in preparing RRP products are manufactured using the same high quality components that are utilized in all cGMP facilities manufacturing HyClone products.

These components have complete Quality Control acceptance and vendor lot traceability. Should your RRP lot require components not presently qualified, they will be sourced from an approved vendor.

Rapid Response Production Requests

To initiate Rapid Response Production services, please contact your account manager for HyClone products.

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HyClone Laboratories Inc.
925 West 1800 South
Logan, UT
84321

In Americas/Asia
435-792-8000
435-792-8001 fax

In Europe
+32 53 85 71 80
+32 53 85 74 31 fax

www.thermo.com/hyclone

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