

Parallel Productivity for Peptide Synthesis



Solid Phase Peptide Synthesis (SPPS)

Wash resins and perform coupling steps while the MiniBlock® remains on the shaker. Rapidly collect products during the cleavage step using Microtiter plate format racks and simple vacuum assisted filtration.



ARRAY Synthesis

MiniBlock® is ideal for ARRAY synthesis protocols which enable the synthesis of large numbers of diverse synthetic peptides for screening against multiple biological targets. Up to 96 peptides can be synthesized using essentially the same effort it takes to synthesize a single peptide. ARRAY synthesis is a favorable alternative to approaches like SPOT synthesis.



Reaction Optimization

Screen for optimal reaction conditions by leveraging the productivity enhancement of parallel synthesis. Rapidly screen for multiple conditions like concentration of reagents, coupling times, *in situ* neutralizations, while understanding difficult amino acid sequences to optimize your high value synthetic processes.



Parallel Purification

MiniBlock® is ideal for post-synthesis clean-up and purification using solid phase extraction (SPE) or techniques involving ion exchange or particle size exclusion. This is achieved by transferring reaction products from the synthesis block to a second MiniBlock® containing pre-packed cartridges. A wide range of sorbents and specialized functional supports are available.



MiniBlock® for Peptide Synthesis

MiniBlock® is an easy to use reaction block for synthesis of multiple peptides in parallel. The unique valve body design of the MiniBlock® enables processes where filtration is critical.

Filtration enables rapid coupling and decoupling of peptides, and streamlines product cleavage and collection – with a simple turn of the valve key. Reaction blocks and collection racks are microtiter plate compatible, which integrate easily with parallel evaporators and automated liquid handlers.

Technical data

Parallel Productivity for Peptide Synthesis with MiniBlock®

MiniBlock® is widely used by chemists working in the bio-pharma and chemical industries. Today, more chemists choose MiniBlock® to increase productivity than any other similar tool. Designed by chemists and engineers at Bristol-Myers Squibb Company, MiniBlock® has been further developed to address a broad range of chemistry methodologies.

Modular and Flexible

MiniBlock® is available in a wide variety of configurations enabling reaction arrays from 6 to 96 reactions with working volumes of 0.5ml to 40ml. MiniBlock® can be heated and cooled if desired using common laboratory recirculators. Temperature ranges are achieved between -20°C and 120°C. MiniBlock® also allows reactions to be run under inert conditions. MiniBlock® components are compatible with the MiniBlock® XT, which is ideal for solution phase synthesis.

Microplate Compatibility

MiniBlock® racks conform to microtiter plate standards, providing flexibility for collection, compatibility with automated liquid handlers and dry down devices, enabling a better use of space. The unique valve body design of the MiniBlock® allows the opening and closing of all vessels at the same time. MiniBlock® reactors and supporting parts are also available in sets and packages, to better match your application and budget.

MiniBlock® Product Family Summary

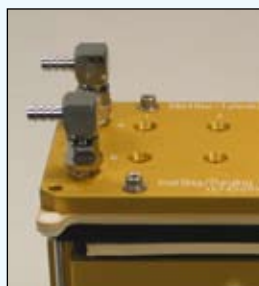
Function/Specification	MiniBlock®	MiniBlock® XT
Solution Phase Synthesis	✓	✓
Solid Phase Synthesis	✓	N/A
SPE	✓	N/A
Scavenger Resins	✓	✓
Number of Reactors	6, 12, 24, 48, 96	6, 12, 24, 48
Working Volume	2-3ml, 5-7ml, 10-12ml, 25-30ml	2-3ml, 7-10ml, 20-25ml, 40-50ml
Heating	80°C (polypropylene) 120°C (glass)	160°C
Cooling	-20°C (via recirculator - not included)	-78°C (Ice Bath) -20°C (via recirculator - not included)
Inerting Capability	✓	✓
Reflux Capability	N/A	✓
Mixing	Orbital Shaking	Stir Plate/Orbital Shaking

MiniBlock® Accessories



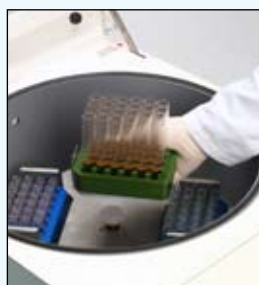
Resin Dispensing

Resin loading is made simple with the MiniBlock® Resin Dispenser. Pre-determined amounts of resins and powders are delivered to all the desired reaction positions in seconds, saving time and reducing the chances of error.



Inert Conditions

The Inert Atmosphere Manifold enables reactions to be run under inert conditions. Manifolds are available in 6, 12, 24, and 48 positions. Manifolds are also used to evaporate solvents in combination with heating and gas delivery, or can be used to apply pressure to assist with solvent removal and product transfer.



Parallel Evaporation

Microtiter plate design enables compatibility with commercially available parallel evaporation systems and eliminates the need for reformatting.



Solution Phase Synthesis

The MiniBlock® XT is an easy to use reaction block for synthesis and screening applications primarily for reactions run in solution. The XT enables reactions to be run at reflux and under inert conditions. The XT enables 6 to 48 reactions with working volumes from 0.2mL to 60mL.

www.mt.com/MiniBlockXT



Internet: <http://www.mt.com/autochem>
Worldwide service



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©06/2009 Mettler-Toledo AutoChem, Inc.
7075 Samuel Morse Drive
Columbia, MD 21046 USA
Telephone +1 410 910 8500
Fax +1 410 910 8600
Email autochem@mt.com

www.mt.com/peptide-synthesis

For more information