

# Biotage® Initiator Peptide Workstation

Biotage® Initiator Peptide Workstation is a versatile accessory for various types of chemistry using microwave irradiation under atmospheric conditions at temperatures below 100°C, e.g. solution and solid phase synthesis, organic, peptide (Fmoc and Boc), PNA, and peptoid chemistry.

## Step-by-Step Guide

1. Insert a new frit into the microwave peptide vial.
2. Insert and tighten the check valve.
3. Add your reagents and a magnetic stirring bar.
4. Cap the vial using a snap cap and septum.
5. Perform the reaction using the Initiator system.
6. Once the reaction is completed, remove the vial from the microwave cavity.



7. Ensure that the vacuum pump is turned off and a bottle/tube is in position in the wash station; see the “Prepare the Wash Station” section.
8. Insert the vial into the wash station. Ensure to push down the vial properly to attain vacuum.
9. Remove the snap cap and empty the microwave peptide vial by turning on the vacuum pump.
10. Dispense your wash solution into the vial.
11. When the vial is properly drained, turn off the vacuum pump.
12. Repeat step 3 to 11 until the synthesis is completed.



Always add a magnetic stirring bar to the vial. In the Initiator system, the reaction mixture is agitated by magnetic stirring. To stir during the washing step, hold the vial on a magnetic stirrer plate.

## Prepare the Wash Station

1. Connect a vacuum pump to the 3/8" barb hose.
2. Load a GL 45 laboratory glass bottle with the maximum height of 230 mm or a 50 mL centrifuge tube. Ensure to pull down the vacuum head properly to ensure good vacuum sealing.

## Initiator

Heat the reaction mixture using the Initiator system. Do not exceed or fall below the vial's specified volume range; 2–5 mL or 10–20 mL. We recommend a temperature of 75°C and a stir rate between 300 and 600 rpm.



**Note:** We do not recommend the use of microwave heating during the Fmoc deprotection step due to the potential risk of promoting side reactions such as aspartimide formation and epimerization.

**Note:** If your Initiator is equipped with a robot, disconnect it at the rear and restart the system.



**Warning**

- For peptide synthesis, do not use pressure as a control parameter (i.e. regulate by pressure) or use a temperature higher than 100°C.
- The snap cap can only be used for peptide synthesis using temperatures up to a maximum of 100°C. Keep the temperature at least 20°C below the boiling point of the solvent.

For information on Initiator, see Biotage® Initiator+ Getting Started Guide (P/N 355422), Biotage® Initiator+ Installation and Safety (P/N 355455), and the online help. The documents can be downloaded at [www.biotage.com](http://www.biotage.com).

**Clean the Exterior of the Wash Station**

If the wash station has been contaminated by chemicals, it must be cleaned immediately using 20% ethanol or methanol.

**Clean the Microwave Peptide Vial**

Clean the microwave peptide vial after each synthesis using the wash station and ethanol or methanol.

**Replace the Vacuum Seal**

If the vacuum seal inside the wash station's vacuum head is damaged, replace it by unscrewing the PEEK cylinder.

**Consumables, Accessories, and Spare Parts**

Only genuine Biotage consumables, accessories, and spare parts (except for centrifuge tubes and GL 45 bottles) must be used.

Part No.	Description
355985	 Initiator Peptide Workstation, 2-5 mL vial (355964 + 355968)
355986	 Initiator Peptide Workstation, 10-20 mL vial (355965 + 355968)
355964	 2-5 mL microwave peptide vial kit including additional septum (5), frit (5), and check valve O-ring (2)
355965	 10-20 mL microwave peptide vial kit including additional septum (5), frit (5), and check valve O-ring (2)
355968	 Wash station, qty 1
355814	 1000 mL GL 45 laboratory glass bottle, qty 1

Part No.	Description
355782	 2-5 mL microwave peptide vial glass barrel, qty 1
355803	 10-20 mL microwave peptide vial glass barrel, qty 1
355957	 Check valve, qty 1
355962	 Check valve O-ring, Perflour (FFKM), qty 2
356142	 Check valve O-ring, Perflour (FFKM), qty 2
356143	 Check valve O-ring, Perflour (FFKM), qty 2
355804	 Snap cap, qty 1
355960	 Septum, qty 5
355961	 HDPE frit, qty 5
355984	 Magnetic stirring bar for 2-5 mL vials, qty 5
353930	 Magnetic stirring bar for 10-20 mL vials, qty 5
355966	 Vacuum seal, Fluoro (FPM), qty 5
355959	 Vacuum seal, Perflour (FFKM), qty 1
355967	 Rubber feet, wash station, qty 4

**Contact Us**

To order consumables, accessories, and spare parts or for more product information, contact your local Biotage representative. See contact information on our website [www.biotage.com](http://www.biotage.com).

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