

Explora AC

The Siemens Explora® family of radiochemistry modules offers a comprehensive line of products for efficient PET compound preparation. All modules are computer controlled using a Windows®-based graphical user interface, offering both convenience and flexibility.

The Explora AC can be used to synthesize ¹¹C-acetate or other Grignard based products. The starting material for all syntheses is ¹¹C-CO₂, which is bubbled through a solution of the active agent. Distillation and/or other purification steps are used to ensure the purity of the final product.

The Explora AC Acetate module is flexible and hence capable to perform Grignard-based chemistry.

The module uses small reaction volumes (e.g., 200 µl of solvent for the bubbling of ¹¹C-CO₂) and inexpensive, readily available components.

Acetate Process Description

The Explora AC delivers a buffered solution of ¹¹C-acetate. The process is a two-step method utilizing methyl magnesium bromide followed by neutralization with phosphoric acid (H₃PO₄).

Typical System Performance

Yield of synthesis (decay corrected to EOB)	> 70%
Setup time	≤ 10 minutes
Production time	≤ 10 minutes
Clean-up time	(uses disposable components)
Time between production runs	1 hour (including decay)

Dimensions

Depth	18 in (46 cm)
Width	9 in (23 cm)
Height	18 in (46 cm)
Weight	35 lbs (16 kg)



Automated Radiochemistry

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The automated chemistry modules are delivered as laboratory equipment for the production of radiochemicals. No claim is made as to the suitability for human use of the products made with these modules. It is the exclusive responsibility of the user to determine if such products can be used for human subjects according to local and federal regulations, and Siemens disclaims all responsibility in this respect.

ISO 13485 certified, meeting internationally recognized quality standards for good manufacturing practices.

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Please contact your local Siemens sales representative for the most current information or contact one of the addresses listed below.

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