

Accent

Cleavage System



The WORLD'S 1st DEDICATED MICROWAVE PEPTIDE CLEAVAGE SYSTEM

- FULL PEPTIDE CLEAVAGE IN 30 MINUTES OR LESS
- MICROCLEAVAGE IN AS LITTLE AS 2 MINUTES
- IMPROVED PEPTIDE PURITY
- USE OF LESS OFFENSIVELY SMELLING REAGENTS
- INCREASED PEPTIDE YIELD

Microwave Peptide Cleavage Makes it Easy!



1
Transfer resin and
rinse thoroughly.



2
Add cleavage cocktail and
assemble reaction vessel.



3
Irradiate in the microwave.



4
Collect the product!

The peptide cleavage step is undoubtedly one of the most important steps in the peptide synthesis process. If the cleavage fails to produce product or if the quality of the cleavage is poor, the peptide is worthless and the synthesis must be performed all over again. So, why risk it?

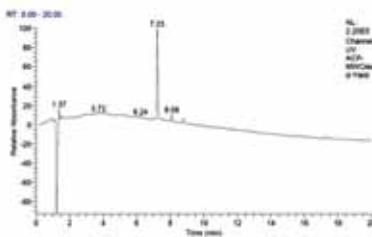
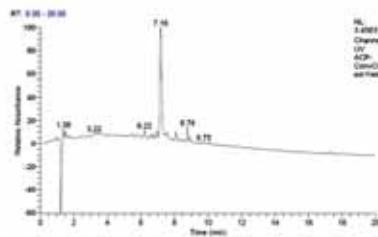
HIGHER ISOLATED YIELD & CRUDE PURITY

Microwave-enhanced peptide cleavage produces high-quality peptides in excellent yields without the side reactions observed with conventional methods in a fraction of the time. The Accent™ Cleavage System features CEM's patented single-mode technology, designed to automatically focus microwave energy with maximum efficiency. The fiber optic temperature probe provides in-situ measurement that controls the power output, ensuring faster reactions, higher yields, and improved purity.

Microwave Peptide Cleavage Peptide Isolated Yield

Peptide: VQAAIDYING

Conditions: TFA/TIS/H₂O/DODT (92.5/2.5/2.5/2.5)



Conventional: 3 hr, room temperature
Isolated Yield: 92%
Crude Purity: ~80%

Additional Synthesis Results

PEPTIDE	ANALYSIS			
	Conventional	Microwave	Conventional	Microwave
1 JR 10mer	42	42	80	80
2 ABC 20mer	70	70	94	96
3 Thymosin	35	37	79	81

Conventional Conditions: 3 hours, room temperature
Microwave Conditions: 30 minutes, 38 °C



MICROCLEAVAGE IN 2 MINUTES!

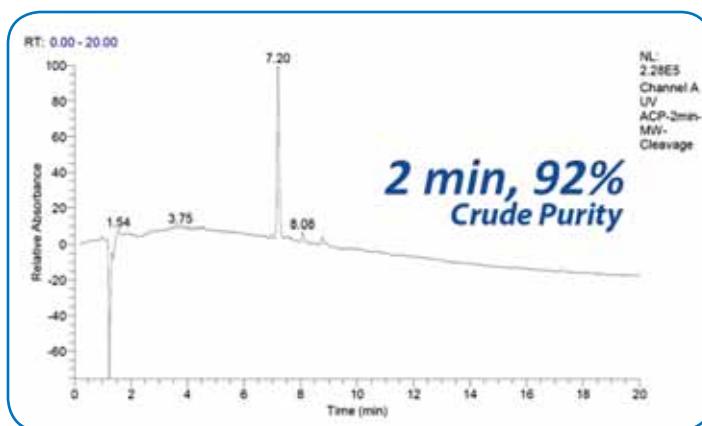
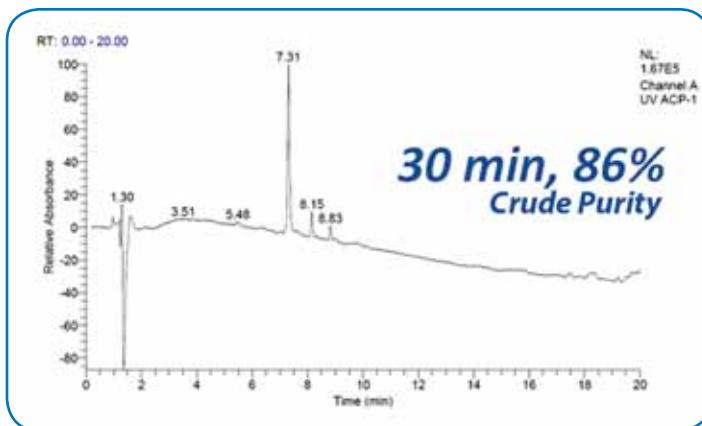
A microcleavage can be performed during a peptide synthesis to accurately determine the progression of the synthesis by using LC/MS. A microcleavage is much more definitive than a Kaiser test and there is no better way to measure the peptide quality of an on-going synthesis. Unfortunately, a conventional microcleavage can take over an hour to obtain the results, wasting precious synthesis time in the process.

In the Accent, a microcleavage can be performed in as little as 2 minutes, allowing the rapid determination of the quality of the synthesis and resulting in very little time away from performing the synthesis itself.

MICROWAVE-ENHANCED MICROCLEAVAGE

Peptide: VQAAIDYING

Conditions: 20 mg resin, 2.5 mL TFA/TIS/H₂O/DODT (92.5/2.5/2.5/2.5), 38 °C



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INSTRUMENT SPECIFICATIONS

Cleavage Scale	micro – 0.25 mmol
Vessel size	4 mL, 25 mL, and 35 mL
Chemistry	Fmoc only (no HF cleavage)
Temperature Sensor	In situ Fiber-optic
Reagent Transfer	Manual or vacuum
Agitation	Magnetic stirring
Power	120V/60 Hz or 240V/50 Hz
Dimensions	22" W x 16.75" D x 9.75" H (56cm x 42.5cm x 25cm)
Patents	US Patents 6648659, 5459302, 6607920B2 with other US & Worldwide patents pending



CEM Corporation
PO Box 200
Matthews, NC 28106
Tel: 800-726-3331
Tel: 704-821-7015
Fax: 704-821-7894
Email: info@cem.com
www.cem.com

United Kingdom
CEM Microwave Technology Ltd.
2 Middle Slade
Buckingham Industrial Park
Buckingham MK18 1WA
Tel: (44) 1280-822873
Fax: (44) 1280-822342
Email: info.uk@cem.com
www.cemmicrowave.co.uk

Germany
CEM GmbH
Carl-Friedrich-Gauss-Str.9
47475 Kamp-Lintfort
Tel: (49) 2842-9644-0
Fax: (49) 2842-9644-11
Email: info@cem.de
www.cem.de

Italy
CEM S.R.L.
Via Dell'Artigianato, 6/8
24055 Cologno al Serio (Bg)
Tel: (39) 35-896224
Fax: (39) 35-891661
Email: info.srl@cem.com
www.cemmicronde.it

France
CEM µWave S.A.S.
Immeuble Ariane
Domaine Technologique de Saclay
4, rue Rene' Razel
91892 ORSAY Cedex
Tel: (33-1)69 35 57 80
Email: info.fr@cem.com
www.cemfrance.fr

Japan
CEM Japan K.K.
2-18-10 Takanawa
Minato-ku, Tokyo
108-0074
Tel: +81-3-5793-8542
Fax: +81-3-5793-8543
Email: info@cemjapan.jp
www.cemjapan.co.jp

Ireland
CEM Technology (Ireland) Ltd.
Sky Business Centre
9a Plato Business Park
Damastown
Dublin 15
Tel: +353 (0) 1 885 1752
Fax: +353 (0) 1 885 1601
Email: info.ireland@cem.com
www.cemmicrowave.co.uk