

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?

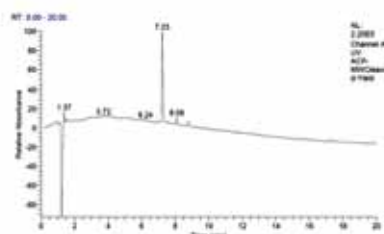
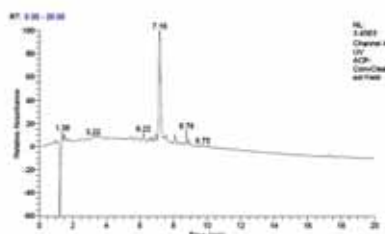
HIGHER ISOLATED YIELD & CRUDE PURITY

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: VQAADYING

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



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

Microwave: 30 min, 38 °C
Isolated Yield: 96%
Crude Purity: ~87%

Additional Synthesis Results

PEPTIDE	ANALYSIS			
	Purity (%)		Crude Yield	
	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!

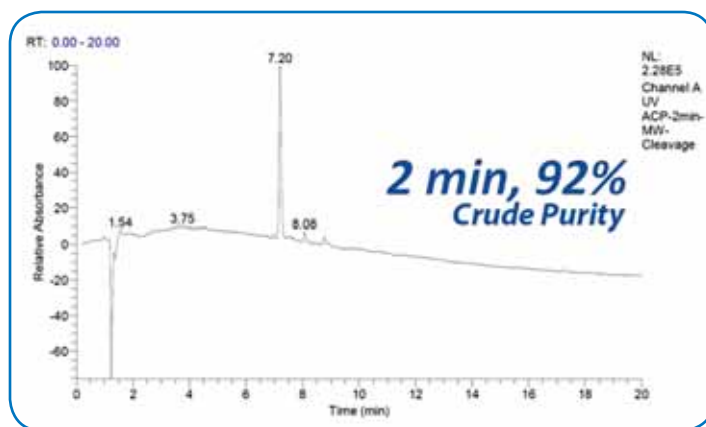
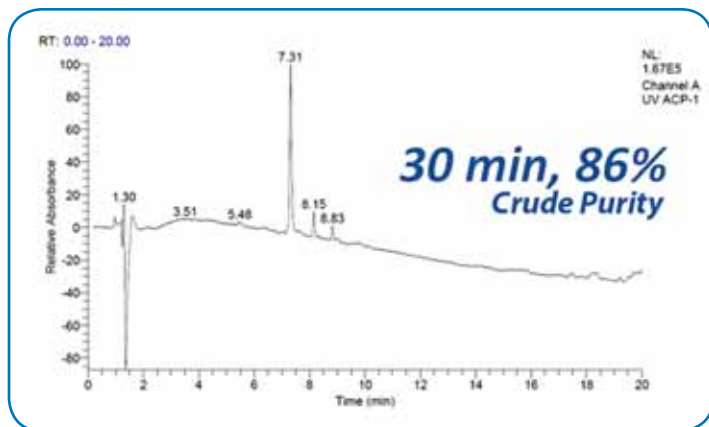
A microcleavage can be performed during a peptide synthesis to accurately determine the progression of the synthesis by using LC/MS. A microcleavage is much more definitive than a Kaiser test and there is no better way to measure the peptide quality of an on-going synthesis. Unfortunately, a conventional 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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Cleavage System

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

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 MK181WA
 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.cemmicroonde.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