

New Peptide Sets

Custom Peptide Synthesis from BIOTREND

2005

*Efficient tools for screening of epitopes,
proteases, antibodies, pharmaco-
logically active peptides...*

Custom Peptide Synthesis

Synthetic peptides are valuable tools to analyze the biological function of a protein interacting with other proteins. With recent developments in chemistry and instrumentation peptides of individual sequences can be synthesized at a fraction of the cost common only a few years ago. At small scale, they are now an affordable tool for molecular biology research.

Peptide Sets

Synthesized at a scale of just a few micromoles, sets of 96 peptides are an affordable screening tool. Peptide sets are shipped as milligram amounts of dry powder in 96 tube racks. They are synthesized according to your sequence specification in just a few weeks.

Libraries for Screening Projects

Perform your search for bioactive sequences with a peptide set produced at small scale, avoiding the cost and time required for individual highly purified peptides. The results should later be confirmed with purified peptides which we also offer.



Applications limited by your imagination only

- *Epitope mapping*
- *T-cell stimulation*
- *Kinase substrate specification*
- *Protease substrate analysis*
- *Receptor binding studies*
- *Vaccine development*
- *Development of ELISA tests*
- *Drug discovery*

Modified Peptides

- Many proteins become active only by post-translational phosphorylation. This modification is available on synthetic peptides as well
- Biotin or a free sulfhydryl group can be added for convenient attachment to modified surfaces or labelling reagents
- Fluorescent labels can be introduced to follow a peptide in cells. Fluorophore-quencher pairs allow easy analysis of protease substrates.
- Cyclization can fix the peptides in a more constraint conformation



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Convenient format

Peptide sets are manufactured by fully automated synthesis using state of the art technology and chemistry. Small scale synthesis in a 96 well format yields the products as lyophilized power in 96 tubes arranged in a microtiter plate format.

Assured quality

At least 6 out of 96 peptides are analyzed by mass spectrometry before a set is released. Full analysis is available as an extra service.

Fast turnaround

Our peptide sets are manufactured in Europe and are usually ready for shipment in about two weeks. Larger amounts of individual purified peptides can be supplied on a similar time scale to verify the results from screening.

We provide support

As a user you may not be familiar with all possibilities realized with synthetic peptides. Ask us about the best design of a peptide set for a certain experiment. With years of peptide chemistry experience we can help you to get your results faster.

Peptide sets are affordable

For screening you need many peptides in small amounts at low cost. We have scaled down the synthesis to just a few milligram and fully automated it in a 96 well format. The cost is further kept down by supplying crude products which are pure enough for screening experiments.

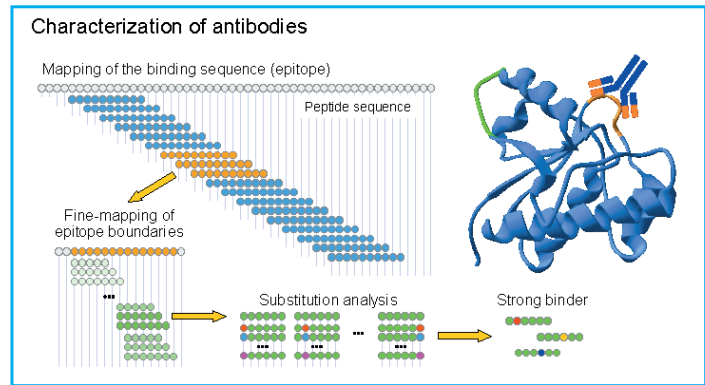


Table 1

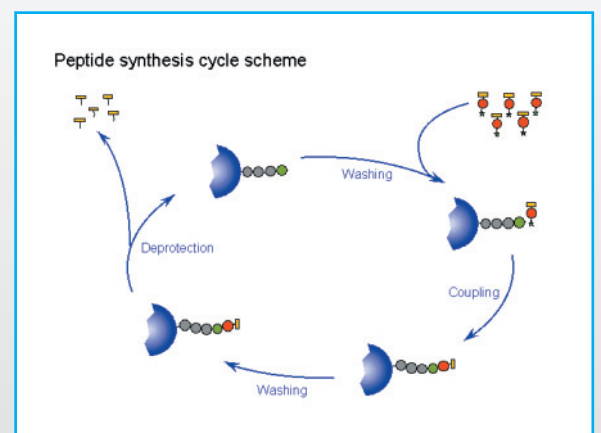
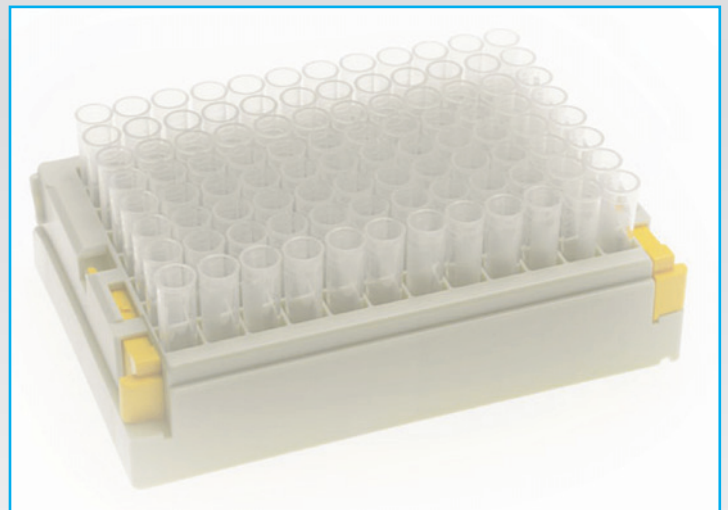


Table 2



Epitope mapping of	B-Cells (antibodies)	cytotoxic T-Cells	helper T-Cells
Length (amino acids)	6-20	9-15	12-25
Overlap (amino acids)	6-12	8-12	12-18
N-terminus	biotin	amine	amine
C-terminus	amide	acid (-COOH)	amide or acid

For B-cell (antibody) mapping the peptides should be bound to a microtiter plate coated with streptavidin for easy handling. The C-terminus should be amide to avoid the charge. In contrast, mapping of T-cells requires a native (acid) C-terminus as the peptides have to bind to antigen presenting cells.

Design your peptide set

Slightly different peptides are required for different purposes. Table 1 gives an overview of suggested properties for epitope mapping. Once a bioactive peptide is recognized, you can truncate the sequence from both ends to narrow down the active site. Then each amino acid is replaced by a neutral one (e.g. alanine) to assess the relative importance of each residue.

Get a quote before ordering

We offer assistance free of obligation. Send us your sequences with a brief description of the desired purpose and we will provide you with a quotation.

Ordering information

Peptide sets are usually offered with a free amino group at the N-terminus and a carboxamide at the C-terminus. There must be at least 48 peptides in a set. The length can vary, but the largest peptide determines the overall price. Special labels and modifications have to be calculated on an individual basis. Please ask for a quotation.

Standard terms for custom peptide synthesis

- MALDI Mass Spectral Analysis supplied on all purified standard peptides.
- Purity is assessed by analytical RP-HPLC for all purified peptides ordered
- Sequences are kept strictly confidential.
- Standard delivery within 4 weeks.
- Allow 4-6 weeks for long peptides (< 25mer) purified peptides and peptides with unusual labels or building blocks.
- All peptides or peptide related products sold by BIOTREND are for research use only.
- The supply of a peptide by BIOTREND does not grant any kind of license by BIOTREND for use of the peptide in any commercial product.
- All orders for custom peptides are accepted by BIOTREND subject to the proviso that, should the peptides prove difficult to synthesize or to purify, we reserve the right to cancel the order.
- Peptides which can not be purified to the extent ordered initially will be offered at reduced cost with no obligation to accept the offer.
- If the quantity obtained after purification is less than ordered the price is scaled down linearly and re-synthesis of the same peptide will be offered at the same conditions.

Prices and Conditions

Peptide sets are efficient tools for screening of epitopes, proteases, kinases, antibodies, pharmacologically active peptides and to address many other biochemical or immunological questions. In many cases, the use of peptide sets is an economic alternative to recombinant protein approaches. Peptide sets made by BIOTREND consist of unpurified peptides, delivered in a 96-tube rack format.

We offer three levels of quality control:

Standard Level QC:

Mass spectrometry of 6 of the 96 peptides in the set.

Silver Level QC:

HPLC analysis and mass spectrometry of 12 of the 96 peptides in the set.

Gold Level QC:

HPLC analysis of 10 and mass spectrometry of all peptides of the set.

Peptide Sets (96-tube rack)			
QC level	Length	Scale	Price per set €
Standard	8 - 11	2 µmol	2695,00
Standard	12 - 15	2 µmol	3025,00
Standard	16 - 20	2 µmol	3520,00
Silver level QC			add 1045,00
Gold level QC			add 1980,00

- *For the 2 µmol scale expect an average yield of 1.5 mg for a 10 amino acid peptide.*
- *All peptides are delivered as lyophilized powder in individual tubes (1.2 ml), arranged in 96-tube racks.*
- *The minimum number of peptides per plate is 48. From 96 to 48 peptides the price decreases linear.*
- *Peptide sets are generally supplied with free N-terminal amino and C-terminal amide group. For peptides with free carboxy C-terminus add 400 € per plate*
- *Data of the HPLC and MALDI MS are provided as analysis certificates.*

Modifications	Additional costs per peptide
N-terminal acetylation	add one residue to the peptide
N-terminal biotinylation	14,00 € per peptide
Fluorescent label and other modifications	upon request

Please note: The purities of the peptides may vary from 30% to 95%, depending on length and sequence. For most applications sequences with 12 – 15 amino acids are sufficient. Very hydrophobic peptides are not recommended, since yields may be very low.

Prices are net without taxes and freight. Our General Terms and Conditions apply. Prices are subject to change without notice. Current prices and order form available at www.biotrend.com

...all prices net. Taxes and transportation cost extra.

Custom Peptide & Peptide Conjugation Order Form

Name: _____
 Telefon: _____
 Fax: _____
 E-mail: _____
 Date: _____
 Institution: _____
 Purchase Order No. _____
 Invoice Address: _____

Shipping Address: _____

Quantity

Unpurified

- 5-15 mg
 10-30 mg
 30-60 mg
 60-120 mg
 Other

Purified

- 1 mg
 5 mg
 10 mg
 25 mg
 Other

N-Terminus

- Free Amine
 Acetylated
 Biotin-spacer (SGSG)*
 Biotin*
 Long chain-(C₆)Biotin*
 Other*

C-Terminus

- Free Acid
 Amide
 Biocytin*
 Long chain-(C₆)Biocytin*
 Other*

Custom Peptide Synthesis Details

Peptide Purity

- Unpurified Other _____
 ≥70% _____
 ≥80% _____
 ≥90% _____
 ≥95% _____

List Sequence below:

Use single letter code.
 Upper Case (as shown for
 L-Amino Acids, Lower Case
 for D-Amino Acids

Alanine	A	Cysteine	C	Histidine	H	Methionine	M	Threonine	T
Arginine	R	Glutamic Acid	E	Isoleucine	I	Phenylalanine	F	Tryptophan	W
Asparagine	N	Glutamine	Q	Leucine	L	Proline	P	Tyrosine	Y
Aspartic Acid	D	Glycine	G	Lysine	K	Serine	S	Valine	V

Please use black ink to complete Sequence Details

N-Terminus																		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	C-Terminus	

If Conjugation Service is required, please complete the following

Amount to be Conjugated: 1 mg 5 mg 10 mg 25 mg Other _____ mg

Carrier

- Diphtheria Toxoid
 KLH
 Gel (Thiopropyl Sepharose)
 Other _____

Cross-Linker

- MCS Glutaraldehyde
 Other _____

MCS Coupling is effected through a cysteine, so peptides should contain only one cysteine, as multiple cysteines may present problems in the preparation of a defined conjugate.

- To expedite your order, please fax a completed copy of this form together with your purchase order. Orders are accepted based on technical review of the peptide sequence(s). All orders for custom peptides are accepted by BIOTREND subject to the proviso that, should the peptides prove difficult to synthesize or to purify, we reserve the right to cancel the order or to supply a product at lower yield or purity than quoted. Resynthesis of a peptide will only be undertaken at BIOTREND's discretion. Reduced prices will apply where lower mass and/or purity is obtained; the price is scaled in proportion to our list prices. In placing an order, the customer accepts that any peptide prepared to within 5% of the target purity and/or quantity level will be automatically shipped and invoiced at the adjusted pricing.
- Mass Spectral analysis provided on all peptides. Peptides requested unpurified are quantitated by MS analysis only. Peptides required at ≥70% and higher purities are quantitated by RP-HPLC (trace included) and confirmed as containing the target peptide by MS analysis.
- Peptides and peptide-conjugates delivered as dried powder.
- Prices do not include freight, insurance or duties.
- Peptides and peptide-conjugates are supplied only for in vitro research purposes or for use in laboratory animals.

The peptides are provided for research purposes only. No other license under any patents or patent rights of BIOTREND or its affiliates is implied or granted with the purchase of the peptides. Buyer hereby agrees to indemnify, defend and hold harmless Seller from any and all liability for patent infringement which may result from seller's manufacture, use or sale of the peptides.

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