

## Peptides

### Standard peptides

All prices are per L-amino acid (aa) unless stated otherwise.

Until knowledge of sequence we reserve acceptance of order.

All peptides are delivered lyophilised as trifluoroacetate salts with free COOH and NH<sub>2</sub> termini unless ordered otherwise.

For higher amounts up to 100g, please inquire!

### **Crude peptides**

Peptides with 6 - 70 L-amino acids (aa); price per aa

All crude peptides include identification of correct peptide sequence by MS analysis. Our experience has shown that a crude 15mer peptide generally has an average purity of 50%, however, we cannot guarantee a certain purity.

length	amount					
	2 mg	5 mg	10 mg	20 mg	50 mg	100 mg
6 - 25 aa						
26 - 70 aa						

### **Crude peptides in plates**

Minimum order of 48 peptides; price per peptide

Delivery of 0.5-2 mg, length 6 - 25 aa

All crude peptides include identification of correct peptide sequence by MS analysis.

Standard delivery format in solution as trifluoroacetate salts with free COOH and NH<sub>2</sub> termini unless ordered otherwise.

length	price per peptide
6 - 25 aa	0.5 - 2 mg

### **Optional**

Dried: TFA salt	please inquire
In solution: 90% DMSO/H <sub>2</sub> O	free
Analytical HPLC	

### **Plates available**

Standard 96 deepwell plate, for ordering >48 peptides	free
48 deepwell plates with individual tubes	
96 deepwell plates with individual tubes	
96 deepwell plates with 2D barcoded tubes, sealed with removable mats	
96 deepwell plates with 2D barcoded tubes, sealed with single screw caps	

## Peptides

### Immunograde peptides, >50% purity

Peptides with 6 - 15 L-amino acids (aa); price per aa

All immunograde peptides include complete documentation with analytical HPLC and MS.

	amount					
length	2 mg	5 mg	10 mg	20 mg	50 mg	100 mg
6 - 15 aa						

### High-grade peptides

All high-grade peptides include complete documentation with analytical HPLC and MS.

#### High-grade peptides, mini

Peptides with 6 – 25 L-amino acids (aa); price per aa

	amount					
purity	2 mg	5 mg	10 mg	20 mg	50 mg	100 mg
70%						
80%						
90%						
95%						
97%						

#### High-grade peptides, midi

Peptides with 26 – 40 L-amino acids (aa); price per aa

	amount					
purity	2 mg	5 mg	10 mg	20 mg	50 mg	100 mg
70%						
80%						
90%						
95%						
97%						

#### High-grade peptides, maxi

Peptides with 41 – 70 L-amino acids (aa); price per aa

	amount					
purity	2 mg	5 mg	10 mg	20 mg	50 mg	100 mg
70%						
80%						
90%						
95%						

Available purity and amount strongly depend on peptide sequence!

**Please inquire for amounts up to 100 g.**

## Peptides

### ProjectPeptides™

Custom synthetic peptides for projects - Orders can be planned in advance!

Delivery up to 7 weeks - **with very attractive pricing!**

Maximum length 25aa

Minimum peptide price is for 6aa; price per aa

Purities: crude - 95% purity

Limited modifications available, please inquire.

purity	amount						delivery time
	2mg	5 mg	10 mg	20 mg	50 mg	100 mg	
Crude	n.a.						~ 4 weeks
70%							~ 5 weeks
80%							6 weeks
90%							7 weeks
95%							8 weeks

### Large scale ProjectPeptides™

For amounts > 1g up to 10 g, for higher amounts please inquire

Limited modifications available, please inquire.

purity	amount		
	1 g	5 g	10 g
Crude			
70%			
80%			
90%			
95%			

## Peptides

### Single peptide modifications

Modifications are available for all peptide types at the indicated position (C-, N-, or internal).  
 Prices are per modification and peptide in addition to the peptide price.

#### Functionalisation of peptide termini

has to be ordered explicitly. Both modifications can be combined on one peptide.

N-terminal acetylation	free of charge
C-terminal amidation	free of charge

### Dye modifications

Prices are per modification and peptide in addition to the peptide price.

	at	amount				
		2 mg	5 mg	10 mg	20 mg	50 mg
AFC (Amino-trifluoro-methyl-coumarin)	C-term					
AMC (Amino-methyl-coumarin)	C-term					
Atto dyes	N-term					
	C-term via Cys					
Dabcyl	N-term					
Dabsyl	N-term					
Dansyl	N-term					
Dansyl	C-term					
DNP (Dinitrophenyl)	N-term					
Dyomics dyes	N-term					
	C-term via Cys					
Edans	intern					
	C-term					
Fluorescein*	N-term					
	C-term via Lys					
	intern					
MCA (Methoxy-coumarin-acetic acid)	N-term					
	C-term					
pNA (p-Nitro-Anilide)	C-term					
Rhodamine B	N-term					
Tamra*	N-term					
	C-term via Lys					

\* mixed isomers

Please inquire for amounts up to 100 g.

## Peptides

### Other modifications

Prices are per modification and peptide in addition to the peptide price.

	at	amount				
		2 mg	5 mg	10 mg	20 mg	50 mg
Biotin	N-term					
	C-term					
Digoxigenin	N-term					
CAM carbamido-methylation)	Cys					
Phosphorylation	not C-term at Ser,Thr,Tyr					
Double phosphorylation charge*	not C-term at Ser,Thr,Tyr					
Sulfurylation	not C-term at Ser,Thr,Tyr		please inquire			
Aldehyde	C-term at Arg,Asp,Val Leu,Phe					

\* in addition to amino acid and phosphorylation prices

	at	2 mg	5 mg	10 mg	20 mg	50 mg
Farnesyl	N-term via Cys					
Formyl	N-term					
Myristoyl, Palmitoyl, Stearyl	N-term					
Succinyl	N-term					

### Glycosylation

	at	2 mg	5 mg	10 mg	20 mg	50 mg
$\beta$ -GlcNAc-Serine	N-term + internal					
$\beta$ -GlcNAc-Threonine	N-term + internal					
$\alpha$ -GalNAc-Serine	N-term + internal					
$\alpha$ -GalNAc-Threonine	N-term + internal					
$\beta$ -GalNAc-Threonine	N-term + internal					
$\alpha$ -Mannosyl-Serine	N-term + internal					
$\alpha$ -Mannosyl-Threonine	N-term + internal					

### Polyethylenglycol spacer (PEG)

	at	2 mg	5 mg	10 mg	20 mg	50 mg
PEG <sub>2</sub> (13 atoms)	N+C-term internal					
PEG <sub>3</sub> (16 atoms)	N+C-term internal					
PEG <sub>4</sub> (19 atoms)	N+C-term internal					
PEG <sub>5</sub> (22 atoms)	N+C-term internal					

## Peptides

### Cyclization\*

	2 mg	5 mg	10 mg	20 mg	50 mg
Cyclization (via disulfide bridge)					
Homodetic cyclization* (via amide condensation)					

\* for cyclization a special pricing applies: 1.6x the linear peptide price + cyclization price!!

### Dimerization\* via disulfide bridges

	2 mg	5 mg	10 mg	20 mg	50 mg
Homodimer					
Heterodimer					

\* for dimerization a special pricing applies: 1.6x the linear peptide price + dimerization price!

### Special amino acids as N-terminal or internal modification

Please inquire for C-terminal modification

Purification required! Only available for High grade peptides (purity >70% - 97%)

Price per special aa

	2 mg	5 mg	10 mg	20 mg	50 mg	100 mg
standard D-amino acids						
Lysine (Acetyl)						
β-Alanine						
1,2-Amino-dodecanoic acid						
Aminobenzoic acid (Abz)						
6-Amino-caproic acid (Aca)						
Aminobutyric acid (Abu)						
Citrulline						
Chloro-L-Tyrosine						
Cysteine (Acm)						
Dimethyl-Lysine						
Dimethyl-Arginine						
Hydroxy-Proline						
Iso-asparagine acid						
Mercaptopropionic acid						
Methyl-Lysine						
Methionine-sulfone						
Methionine-sulfoxide						
3-Nitro-Tyrosine						
Norleucine (Nle)						
Pyro-Glutamic acid (Pyr)						
Tri-Methyl-Lysine						
Z (Carbobenzoyl)						

Please inquire for amounts up to 100 g.



## Peptides

### Peptides for immunization assays

#### Peptide conjugates

available carrier: KLH, BSA or OVA

prices valid for peptides from 6 to 25 amino acids (aa)

Any remaining free peptide will be delivered free of charge

Please inquire for additional free peptide for KLH, BSA, or OVA conjugates >3 mg

price per conjugate	final amount of conjugate		
	2 mg	5 mg	10 mg
immunograde, average 50% purity			
70% purity			
80% purity			
90% purity			
95% purity			

#### MAPs (Multiple Antigen Peptides) for direct immunization

available only crude, for peptides with 8 – 20 amino acids (aa).

Branched peptides, available as MAP4 (4 branches) or MAP8 (8 branches).

	final amount		
	10 mg	20 mg	50 mg
linear peptide			
price per L-aa			
MAP modification			
price per MAP molecule			

**Please note:** Only available at C-terminus!

## Peptides

### Peptide – oligonucleotide conjugates

Molecules, where the C- or N-terminus of a peptide is covalently linked to the 3'- or 5'-terminus of an oligonucleotide, resulting in general in a linear peptide-oligonucleotide conjugate.

#### Standard peptide-oligonucleotide conjugates

consist of:

	peptide	oligonucleotide
length	6 – 15 amino acids	8 – 40 DNA bases
purity	> 95%	HPLC-purified
coupling via	N- or C-terminal Cys	3'- or 5'-terminal aminolink
restrictions	no other Cys per peptide allowed!	none
modifications	none	combination possible with: - PTO or LNA bases - additional dye modification (such as Fluorescein or Cy3)

They are available in the following synthesis scales:

synthesis scale	0.04 µmol	0.2 µmol
conjugate yield in OD*	1	2.5
equals yield in µg**	35	87.5
price per DNA base		
price per amino acid		
price per conjugation		

\* optical density at  $\lambda = 260$  nm

\*\* valid for conjugate of 10mer peptide and 20mer oligonucleotide of equimolar base composition

**Please note:** Peptides with several Arg and/or Lys residues carry a high positive electric charge. These peptides are likely to interact with the negatively charged DNA backbone, so overall yields of peptide-oligonucleotide-conjugates decrease drastically.

#### Special peptide-oligonucleotide conjugates

Please contact us for your individual quotation for the following special conjugates:

- coupling of siRNA to peptides
- coupling of LNA to peptides
- coupling of single amino acids to oligonucleotides
- coupling of peptides without Cys to oligonucleotides
- coupling of peptides with several Cys to oligonucleotides

### I.M.P. (Interactiva Manufacturing Practice) peptides

If you are using synthetic peptides for a diagnostic application, in a commercial product or service, our I.M.P. service gives you the traceability and documentation you require.

The I.M.P. service includes:

- Peptide synthesis separately from routine production by specially trained staff
- Specially reserved instruments with fully documented reagents
- Highly reliable purity of product with our standard premium purification method
- Purification under clean-room conditions
- Special purification procedure for purification equipment (HPLC columns) between purification or different products
- Quality control by MS and analytical HPLC
- All impurities detected by HPLC of >2.5% are analysed by MS

I.M.P. service*	
additional cost per peptide	

\* available for a minimum of 5 peptides per order

**Guaranteed quality and QA at reasonable costs!**

## Peptides

### Optional peptide services

#### Delivery in aliquots (> 1 mg)

per aliquot	
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#### Plates available

Standard 96 deepwell plate, for ordering >48 peptides	free
48 deepwell plates with individual tubes	
96 deepwell plates with individual tubes	
96 deepwell plates with 2D barcoded tubes, sealed with removable mats	
96 deepwell plates with 2D barcoded tubes, sealed with single screw caps	

#### Change of counter ion

Unless ordered otherwise, all peptides will be delivered as TFA (trifluoroacetate) salts.

change of counter ion to	price per peptide
Cl (chloride)	
Ac (acetate)	

#### Solubility testing

If required, we can provide individual solubility protocols for your peptide.

solubility protocol price per peptide		minimum or 10% of peptide costs
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#### Quantitation by Amino Acid Analysis

Only available for peptides in solutions.

Details of method on request.

peptide content quantitation by amino acid analysis		per peptide
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