



# aapptec

advanced automated peptide protein technologies

## Custom Peptides Antibodies



PEPTIDES, ANTIBODIES

# Custom Antibodies

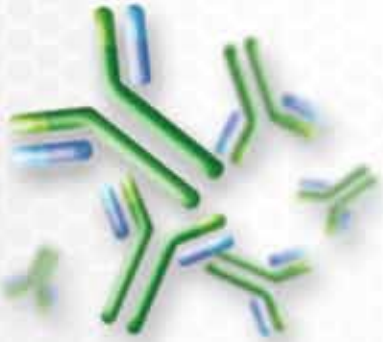


aapptec provides custom peptides and immunology products with high quality and fast delivery at an affordable price to research scientists worldwide. aapptec has unparalleled experience in peptide synthesis. Our chemists have 32 years prior experience in preparing and purifying high quality peptides for research and production.

aapptec provides a full range of custom antibody services including antigen preparation (synthetic peptide or purified protein), custom polyclonal and monoclonal antibody production, purification and labeling of antibodies. We generate antibodies for various applications, including ELISA, WB, and IHC.

aapptec Antibody Service provides:

- Accurate Antigen Prediction
- Experienced Scientists and Technicians
- Stringent Quality Control
- Competitive Prices for the Highest Quality
- Free Consultation
- Strict Confidentiality



## Featured Custom Antibody Services

### Animals

- Chicken, Goat, Guinea Pig, Mouse, Rat, Rabbit, etc.

### Antibody Identification

- Dot blot
- ELISA
- IHC
- Western blot

### Antibody Labeling

- Biotin
- FITC
- HRP

### Antigen Prep

- Peptide synthesis
- Protein expression and purification
- Antigen peptide design
- Antigen conjugation (to KLH, BSA or OVA)

### Monoclonal

#### Antibody Service

- Hybridoma Cell Production
- Fusion Cell Selection
- Cryogenic Preservation

### Polyclonal

#### Antibody Service

- Application guaranteed antibody (ELISA, WB, IHC etc.)
- Modification-specific antibody (Phosphoacetyl-methyl-antibody, etc.)

### Antibody Purification

- Protein A/G/L purification
- Antigen affinity purification

## Popular Custom Antibody Packages

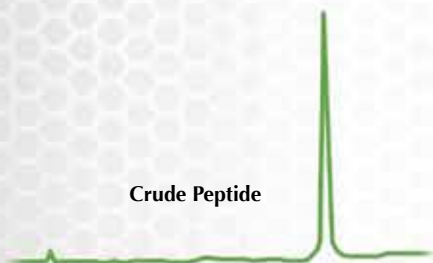
Package	Service Content	Final Products	Time
Monoclonal Package 2 (From antigen design to antigen affinity purification)	<ul style="list-style-type: none"> <li>• Antigen design and synthesis (12-22aa, 85%)</li> <li>• Peptide conjugation</li> <li>• Animal immunization and serum collection</li> <li>• ELISA titering</li> <li>• Hybridoma generation</li> <li>• igG isotype determination</li> <li>• Ascites production</li> <li>• Antibody affinity purification (2 hybridoma strains)</li> </ul>	<ul style="list-style-type: none"> <li>• 2-3mg antigen peptide</li> <li>• 50ul (1:10 diluted) pre-bleed</li> <li>• 2-5 hybridoma strains</li> <li>• 2-5mg antigen affinity purified antibody (from ascites)</li> <li>• ELISA and dot blot data</li> <li>• Complete project report (COA)</li> </ul>	20-26 weeks
Monoclonal Package 5 (Phospho-specific monoclonal antibody)	<ul style="list-style-type: none"> <li>• Antigen design and synthesis (12-22aa, 85%)</li> <li>• Peptide protein conjugation</li> <li>• Animal immunization and serum collection</li> <li>• ELISA titering</li> <li>• Hybridoma generation</li> <li>• igG isotype determination</li> <li>• Ascites production</li> <li>• Antibody affinity purification (2 hybridoma strains)</li> </ul>	<ul style="list-style-type: none"> <li>• 2-3mg antigen (non-phospho and phospho) peptide</li> <li>• 50ul (1:10 diluted) pre-bleed</li> <li>• 2-5 hybridoma strains</li> <li>• 2-5mg non-specific antibody (purified from ascites)</li> <li>• 2-5mg phospho-specific antibody (purified from ascites)</li> <li>• ELISA and dot blot data</li> <li>• Complete project report (COA)</li> </ul>	21-26 weeks
Polyclonal Package 1 (From protein antigen to anti-serum)	<ul style="list-style-type: none"> <li>• Detection for protein purity and concentration</li> <li>• Animal immunization</li> <li>• Bleed collection</li> <li>• ELISA titering</li> </ul>	<ul style="list-style-type: none"> <li>• 1-2ml pre-bleed</li> <li>• 40-60ml post-bleed</li> <li>• ELISA data</li> <li>• Complete project report (COA)</li> </ul>	10-12 weeks
Polyclonal Package 4 (From antigen design to antigen affinity purification)	<ul style="list-style-type: none"> <li>• Antigen design and synthesis (12-22aa, 85%)</li> <li>• Peptide conjugation</li> <li>• Animal immunization and serum collection</li> <li>• ELISA titering</li> <li>• Antigen affinity purification</li> </ul>	<ul style="list-style-type: none"> <li>• 2-3mg antigen peptide</li> <li>• 1-2ml pre-bleed</li> <li>• 2-5mg affinity purified antibody</li> <li>• ELISA and dot blot data</li> <li>• Complete project report (COA)</li> </ul>	12-15 weeks
Polyclonal Package 8 (From cDNA to antigen affinity purified antibody)	<ul style="list-style-type: none"> <li>• Construction of expression vectors</li> <li>• Protein expression and purification</li> <li>• Animal immunization and serum collection</li> <li>• ELISA titering</li> <li>• Antigen affinity purification</li> </ul>	<ul style="list-style-type: none"> <li>• 2-3mg antigen (non-phospho and phospho) peptide</li> <li>• 1-2ml pre-bleed</li> <li>• 2-5mg non-specific antibody and phospho-specific antibody</li> <li>• ELISA and dot blot data</li> <li>• Complete project report (COA)</li> </ul>	13-16 weeks
Polyclonal Package 9 (Phospho-specific polyclonal antibody)	<ul style="list-style-type: none"> <li>• Antigen design and synthesis (12-22aa, 85%)</li> <li>• Peptide conjugation</li> <li>• Animal immunization and serum collection</li> <li>• ELISA titering</li> <li>• Antigen affinity purification</li> </ul>	<ul style="list-style-type: none"> <li>• 2-3mg antigen (non-phospho and phospho) peptide</li> <li>• 1-2ml pre-bleed</li> <li>• 2-5mg non-specific antibody and phospho-specific antibody</li> <li>• ELISA and dot blot data</li> <li>• Complete project report (COA)</li> </ul>	13-16 weeks

# Custom Peptide Synthesis



aapprec synthesizes custom peptides in quantities of a few milligrams for research, to large multi-kilogram quantities for industrial production. Only top quality resins, reagents and state-of-the-art methods are utilized in the preparation of all custom peptides to assure the highest yield and purity. MAP peptides, cyclic peptides and peptides containing unusual amino acids such as modified side chains or other modifications are prepared to the same high quality standards as standard peptides.

Crude Peptide



All final products are provided with a complete quality control package including Mass Spectral Analysis to confirm the purity and identity of the peptide. From 2 amino acids to 85 amino acids, aapprec prepares custom peptides in the scale and purity required. Please call us to discuss your peptide requirements with our experienced staff. Strict confidentiality is assured.

## Custom Peptide Production

aapprec can produce individual peptides in milligram to multi-kilogram quantities, or libraries up to thousands of peptides. We comply with the most stringent quality control specifications at a competitive price. Let our experienced chemists assist with your development and production needs. All requests are evaluated with strict confidentiality. Due to our strong record in peptide synthesis, knowledgeable technical team and superior production standards, a collaboration with aapprec provides a competitive advantage in the life sciences industry.

## Quality Matters

aapprec will remain the leader in providing the latest technology in peptide and protein synthesis for both research and industrial scale production. We will reach this goal by ensuring that our standards of quality and service are never compromised.



View our complete  
line of Peptide  
Synthesizers at  
[www.aapprec.com](http://www.aapprec.com).

## Catalogue Peptide Service

aapprec currently offers over 3,000 catalog peptides in package sizes appropriate for research, with new peptides continuously being added. We can also provide larger quantities by quotation. Our catalog peptide products are available for your research applications as well as small scale peptide synthesis at a very competitive price. aapprec has a wide range of research grade peptide products, each of which is accompanied with HPLC and MS analysis. aapprec has a global reputation that stands for the highest quality products and innovation. At aapprec we are continuously expanding and refreshing our selection of peptides, amino acid derivatives, resins, linkers, reagents and immunology products. The newest additions can be found on our online catalog at [www.aapprec.com](http://www.aapprec.com).

Peptides are versatile biomolecules with applications in:

- Drug Discovery & Development
- Diagnostics
- Cosmetics
- Veterinary Medicine
- Materials Science

## Peptide Categories

aapprec has experience in producing peptides of any complexity and will provide excellent service and technical support for all your peptide needs. If a peptide is not available in the catalog or on our website, our experienced chemists can prepare custom peptide sequences of up to 85 amino acids in length with your specified purity and quantity requested. Some of the categories of peptides that aapprec offers include:

- ACTH
- Adipokinetic Hormones
- Adrenomedullin
- Allatostatins
- Beta-Amyloid Fragments
- Angiotensins
- ANP, BNP
- Bombesins
- Bradykinins
- Calcitonins
- Casomorphins
- Alpha-CGRP
- CCK
- Dynorphins
- Endorphins
- Enkephalins
- Galanin
- GRF
- Glucagon-like Peptides
- Interleukin Fragments
- API Peptides
- And many more



## Peptide Synthesis Popular Modification

Term	Example
<i>D-Amino Acids</i>	D-isomers of all standard and unusual amino acids
<i>N-Methyl Amino Acids</i>	N-Methylation of standard amino acids
<i>Unusual Amino Acids</i>	Any readily available unusual amino acid
<i>Phosphorylation</i>	Tyr, Ser, Thr
<i>Sulfonation</i>	Tyr(SO <sub>3</sub> H)
<i>Cysteine Derivatives</i>	Cys(Acm), Cys(tBu)
<i>Lysine Derivatives</i>	Lys(DNP), Lys(Me), Lys(Me <sub>2</sub> ), Lys(Me <sub>3</sub> ) <sup>+</sup> , Lys(Ac)
<i>Serine Derivates</i>	Ser(octanoic acid)
<i>Isotopic Amino Acids</i>	<sup>13</sup> C, <sup>15</sup> N, Deuterium (2H)
<i>N-Terminal Modifications</i>	Acylation, Formylation, Succinylation, Myristylation, Palmytoylation, Benzyloxycabonylation (Cbz)
<i>C-Terminal Modifications</i>	Amidation (HN <sub>2</sub> , NHET, NHMe), p-Nitroanilide (pNA), AMC, NHS (OSu), CMK/FMK, Ester (OMe, OEt, OBzl, OtBu)
<i>Cyclic Peptide</i>	1 Disulfide Bridge, 2 Disulfide Bridges, 3 Disulfide Bridges, Amide Cyclic (Side-chain, End), Stapled Peptides
<i>Multiple Antigenic Peptides System</i>	Asymmetric 4 branches, Asymmetric 8 branches, KLH, BSA/OVA
<i>Tags &amp; Labeling</i>	Biotin (N-Terminal, with or without Ahx), Biotin (Lys sidechain), FITF/5-FAM (N-Terminal, with or without Ahx), FITC/5-FAM (Lys sideschain), Dansyl (N-Terminal, with or without Ahx), MCA (N-Terminal), HYNIC (N-Terminal), DTPA (N-Terminal), etc.
<i>Quenched Fluorescent Peptide</i>	Abz/Tyr(3-NO <sub>2</sub> ), EDANS, DABCYL, etc.
<i>Additional Services</i>	Amino Acid Analysis, Aliquots

# Peptide Library Synthesis



aapptec provides custom peptide libraries for lead discovery, drug development, and SAR studies, including alanine scans and truncation sets. Peptide libraries are provided as crude peptides in 96-well plates with approximately 2  $\mu\text{mol}$  of lyophilized peptide in each well. We use optimized protocols and techniques to ensure consistent quality, from library-to-library and within libraries. Library peptides can be up to 28 amino acids. Modifications include: D-amino acids, unusual amino acids, biotin or fluorescent labeling, N-acylation or C-terminal amide.

Provide aapptec with the peptide sequences and we will prepare a quotation for your library. Typical delivery consists of lyophilized peptides in 96-well titer plates, peptide location table, and MS and HPLC data.

## Library Prices Per Crude Peptide (1-4 mg)

1/2 Plate	1 Plate	2 Plates	3 Plates
\$29	\$25	\$24	\$22

aapptec provides custom peptides in the following purities:

- Crude peptide as synthesized without purification
- Immunological Grade (suitable for producing polyclonal antibodies)
- 80% or greater (tissue culture; ligand for affinity purification; non-quantitative antibody blocking experiments)
- 90% or greater (in vivo studies, bioassays; markers for electrophoresis; monoclonal antibodies)
- 95% or greater (ELISA; RIA; enzyme substrate)
- 98% (NMR; chromatography standards)





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## Spirit of Innovation

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