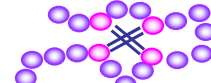
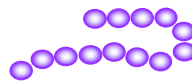
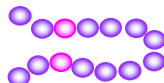
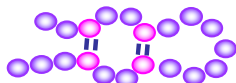
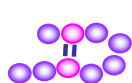


PharmaGPEP ver.3SP

PharmaDesign GPCR peptide libraries



Peptide ligand candidate library designed based on bioinformatics

Features of ver.3SP

◆ New algorithms for prediction

Based on the pathway in which known physiologically active peptides are biosynthesized, these methods were used to predict cleavage sites

- 1) Machine learning method based on sequence and structure information
- 2) Pattern matching method based on C-terminal sequence and modification information

◆ Limited sets available

Only 8 sets available

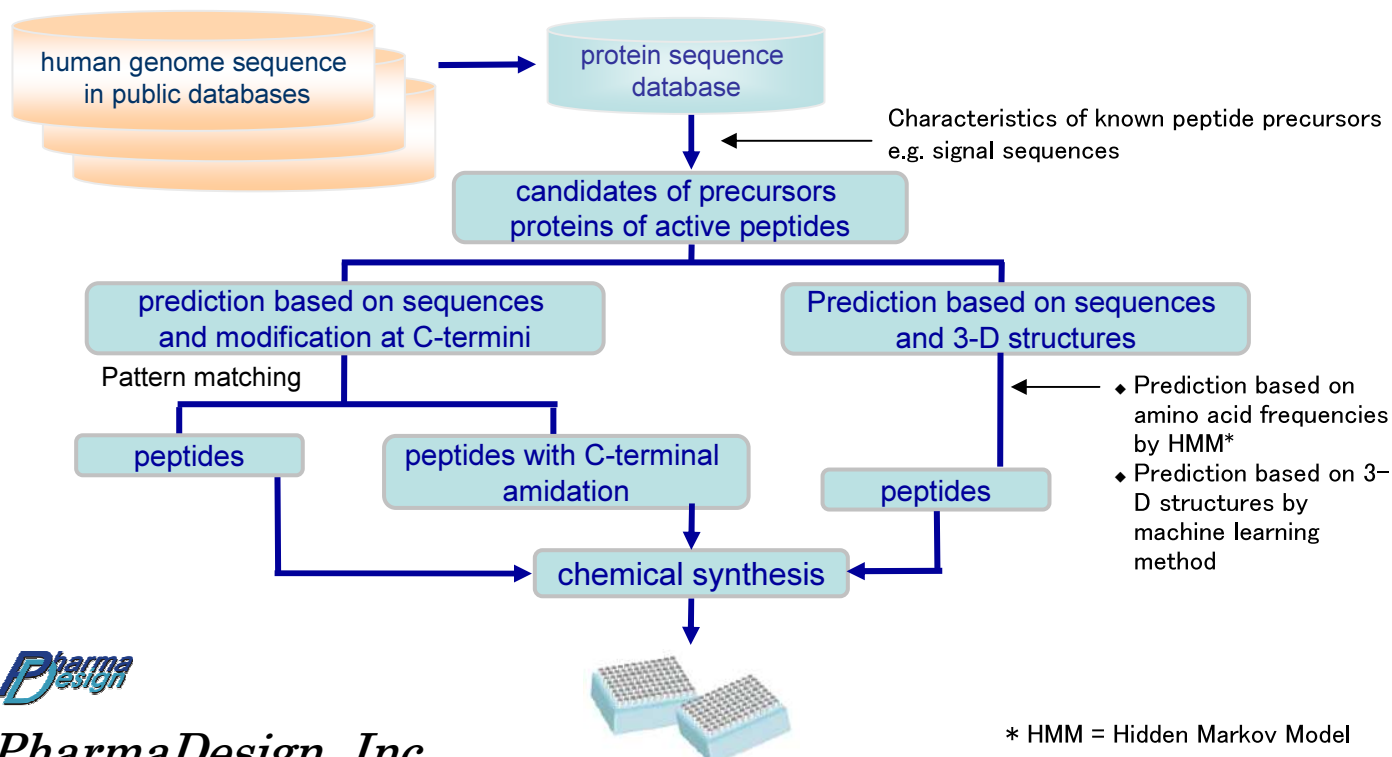
◆ High purity

HPLC purified, approximately 80% in average

Applications

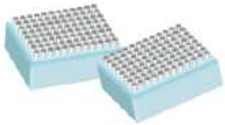
- Ligand search for G-protein coupled receptors (GPCRs)
- Search of novel physiologically active peptides

Development of PharmaGPEP ver.3SP



PharmaDesign, Inc.

PharmaGPEP ver.3SP



Product Specification

- Number and amount of peptide: approximately 350 peptides, 100 nmol each
- Length of peptides: 6-40 amino acids, some have 2 or 4 Cysteins each
- Modification: some have N-terminal pyroglutamylation and/or C-terminal amidation
- Purity: approximately 80% in average, HPLC purified
- Provided form: lyophilized
- Package: in microtubes/racks
- Release date: December 2006 (the first approximately 180 will be available in December 2006 and the rest in January 2007)
- Limited 8 sets available

General concept of PharmaGPEP and prediction methods for ver.3SP

General concept:
Comprehensive extraction of peptide ligand candidates from human genome sequence using bioinformatics

Prediction based on...

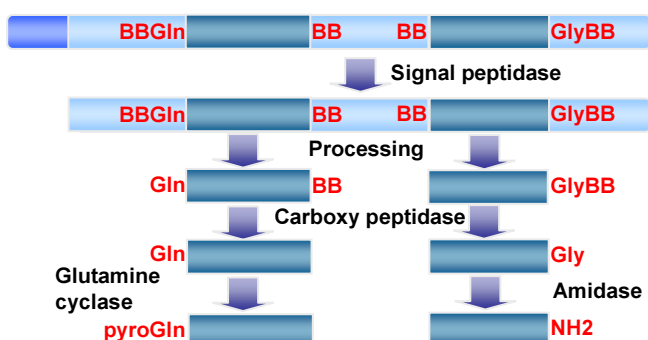
To predict precursor proteins

- Signal sequences
- Annotations
- Motifs, etc

To predict cleavage sites of active peptides

- amino acid frequencies using Hidden Markov Model
 - disorder regions at cleavage sites
 - secondary structures
 - Solvent accessibility, etc
 - Pattern matching method for sequences and modification
- } machine learning method

Biosynthesis pathway of known peptide ligands from precursor



PharmaDesign, Inc.

2-19-8, Hatchobori, Chuo-ku,
Tokyo 104-0032 Japan
Tel: +81-3-3523-9630 Fax: +81-3-3523-9631
e-mail: sales@pharmadesign.co.jp
<http://www.pharmadesign.co.jp>