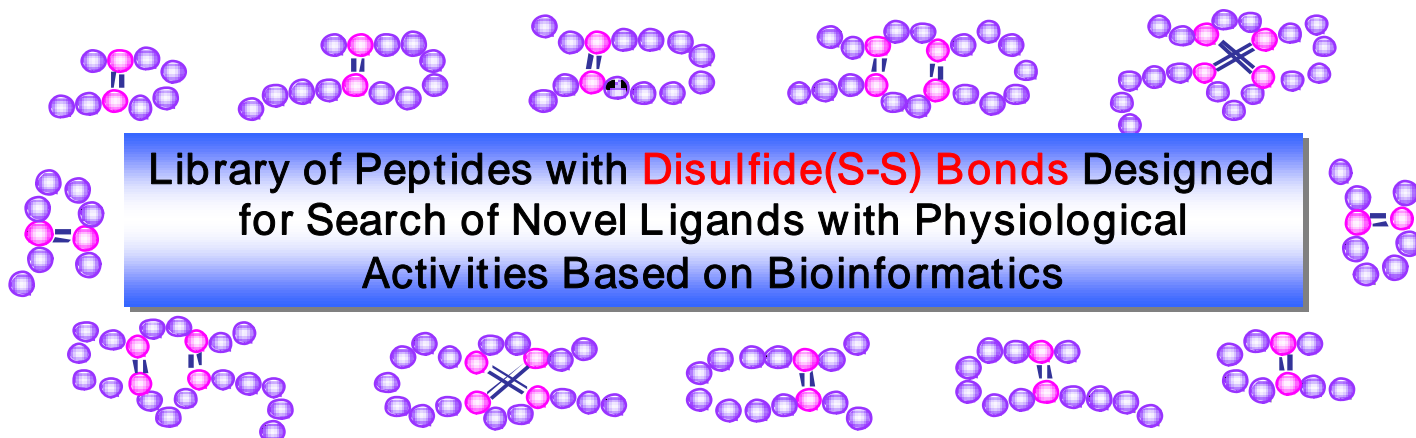


# PharmaGPEP ver. 2S

PharmaDesign's GPCR peptide library



Library of Peptides with **Disulfide(S-S) Bonds** Designed for Search of Novel Ligands with Physiological Activities Based on Bioinformatics

## Features

### High purity

- Chemically synthesized and HPLC purified peptides make it possible to assess physiological activities more accurately.
- >60% purity (approx. 90% in average by HPLC/MS)

### With disulfide (S-S) bonds

- All peptides have disulfide bonds
- Peptides with 4 cysteines are provided in up to three forms separately (up to two bonds per peptide in up to three different combinations)

### High amount

- 100 nmol per peptide
- possible to use on many assays, e.g. dose response test

## Applications

Ligand search for orphan GPCRs, search of ion-channel blockers, etc.

Because many of known active peptides have disulfide bonds <sup>\*1</sup>, PharmaDesign searched peptide ligand candidates with one or two disulfide bonds each from the human genome information, and had them chemically synthesized.

<sup>\*1</sup> While only 1.85% of amino acids of all proteins are cysteine residues involved in disulfide bonding in average, 9.71% are involved in disulfide bonding in peptides known to have physiological activities, which means 5 times higher. (Researched by PharmaDesign)

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## Product specification

100 nmol per peptide, approx. 100 peptides per set

Peptide length: 6-40 amino acids per peptide

Modifications: N-terminal pyroglutamylation and/or C-terminal amidation in some peptides based on characteristic features of sequences

Purity: >60% (approx. 90% in average, HPLC purified)

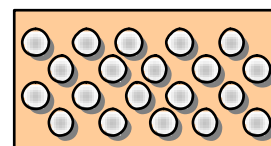
Shipping form: lyophilized

Package: in microtubes set in racks

Analysis data: HPLC/MS data for each peptide

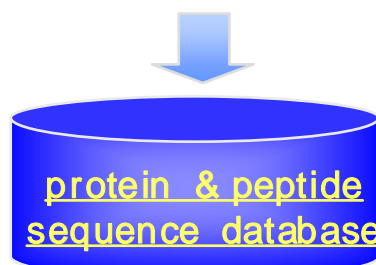
Price: US\$100,000 per set

Available from: January 2006



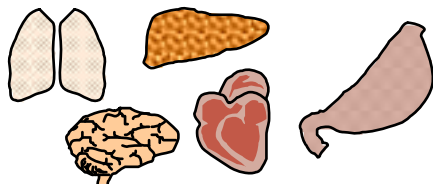
## Search of Peptide Ligand Candidates for PharmaGPEP

human genome sequences



data mining & bioinformatics

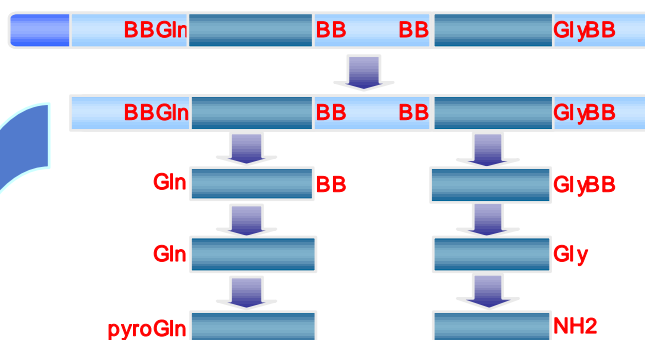
Ligand Search from Tissue Samples



### Disadvantages

- > difficult to extract enough amounts of peptides
- > not suitable for high throughput screening that requires large amounts of samples.

Biosynthesis Pathway  
of Known Peptide Ligands from Precursor



PharmaGPEP

### Advantages

- > Possible to prepare samples at high concentrations, and run more accurate screening
- > Possible to prepare large amounts of samples, and run high throughput screening

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