

## Test Report

QDF23-053490-06

Date: 15 Sep 2023

Client name: True Peptide Biotechnology ( Dalian) Co., Ltd.  
Client address: No.611 Guang Fu Road, Changxingdao Economic Zone, Dalian City, Liaoning Province  
Sample name: Nanoscale Active Peptide  
Manufacturer: True Peptide Biotechnology ( Dalian) Co., Ltd.  
Sample Batch No.: /  
Production Date: /  
Sample size/specification: /  
Manufacturer address: Plant No. 1, No. 611 Guang Fu Road, Changxingdao Economic Zone, Dalian City, Liaoning Province

Above information and sample(s) was/were submitted and certified by the client, SGS quoted the information with no responsibility as to the accuracy, adequacy and/or completeness.

SGS Reference No. : DLF23-016413  
Date of sample received: 04 Sep 2023  
Test Period: 04 Sep 2023 – 14 Sep 2023  
Test Requested: Selected test(s) as requested by client.  
Test method(s):  
Test Result(s):

Please refer to next page(s).  
Please refer to next page(s).

SGS Authorized Signature



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## Test Report

**QDF23-053490-06**

**Date: 15 Sep 2023**

### Sample Description :

|              |                  |                  |
|--------------|------------------|------------------|
| Specimen No. | SGS Sample ID    | Description      |
| 1            | QDF23-053490.001 | sample in bottle |

### Chemical test

### Test Result(s):

| Test Item(s)                       | Unit    | Test Method(s)                   | Test Result(s)<br>001 | LOQ  |
|------------------------------------|---------|----------------------------------|-----------------------|------|
| Oligopeptides content(on dry base) | %       | GB/T 22729-2008                  | 94.8                  | -    |
| **Aspartic acid                    | g/100 g | In house method-Hydrolyzed, AAA  | 8.14                  | 0.01 |
| **Threonine                        | g/100 g | In house method-Hydrolyzed, AAA  | 3.39                  | 0.01 |
| **Serine                           | g/100 g | In house method-Hydrolyzed, AAA  | 4.16                  | 0.01 |
| **Glutamic acid                    | g/100 g | In house method-Hydrolyzed, AAA  | 12.14                 | 0.01 |
| **Glycine                          | g/100 g | In house method-Hydrolyzed, AAA  | 18.37                 | 0.01 |
| **Alanine                          | g/100 g | In house method-Hydrolyzed, AAA  | 6.94                  | 0.01 |
| **Valine                           | g/100 g | In house method-Hydrolyzed, AAA  | 2.83                  | 0.01 |
| **Isoleucine                       | g/100 g | In house method-Hydrolyzed, AAA  | 2.08                  | 0.01 |
| **Leucine                          | g/100 g | In house method-Hydrolyzed, AAA  | 4.08                  | 0.01 |
| **Tyrosine                         | g/100 g | In house method-Hydrolyzed, AAA  | 1.62                  | 0.01 |
| **Phenylalanine                    | g/100 g | In house method-Hydrolyzed, AAA  | 2.18                  | 0.01 |
| **Lysine                           | g/100 g | In house method-Hydrolyzed, AAA  | 2.76                  | 0.01 |
| **Histidine                        | g/100 g | In house method-Hydrolyzed, AAA. | 1.33                  | 0.01 |
| **Arginine                         | g/100 g | In house method-Hydrolyzed, AAA  | 8.38                  | 0.01 |
| **Proline                          | g/100 g | In house method-Hydrolyzed, AAA  | 8.96                  | 0.01 |
| **Cystine                          | g/100 g | In house method-Hydrolyzed, AAA  | 0.40                  | 0.01 |
| **Methionine                       | g/100 g | In house method-Hydrolyzed, AAA  | 1.87                  | 0.01 |
| **Tryptophan                       | g/100 g | In house method-Hydrolyzed, HPLC | 0.37                  | 0.01 |

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| Test Item(s)                                                           | Unit    | Test Method(s)                  | Test Result(s)<br>001 | LOQ  |
|------------------------------------------------------------------------|---------|---------------------------------|-----------------------|------|
| **Total of Hydrolyzed Amino Acid(18 items)                             | g/100 g | In house method-Hydrolyzed, AAA | 90.00                 | -    |
| **Aspartic acid                                                        | g/100 g | In house method-Free, AAA       | 0.09                  | 0.01 |
| **Threonine                                                            | g/100 g | In house method-Free, AAA       | 0.04                  | 0.01 |
| **Methionine                                                           | g/100 g | In house method-Free, AAA       | ND                    | 0.01 |
| **Serine                                                               | g/100 g | In house method-Free, AAA       | 0.05                  | 0.01 |
| **Glutamic acid                                                        | g/100 g | In house method-Free, AAA       | 0.41                  | 0.01 |
| **Glycine                                                              | g/100 g | In house method-Free, AAA       | 0.06                  | 0.01 |
| **Alanine                                                              | g/100 g | In house method-Free, AAA       | 0.13                  | 0.01 |
| **Valine                                                               | g/100 g | In house method-Free, AAA       | ND                    | 0.01 |
| **Isoleucine                                                           | g/100 g | In house method-Free, AAA       | 0.14                  | 0.01 |
| **Leucine                                                              | g/100 g | In house method-Free, AAA       | 0.13                  | 0.01 |
| **Tyrosine                                                             | g/100 g | In house method-Free, AAA       | ND                    | 0.01 |
| **Phenylalanine                                                        | g/100 g | In house method-Free, AAA       | ND                    | 0.01 |
| **Lysine                                                               | g/100 g | In house method-Free, AAA       | 0.15                  | 0.01 |
| **Histidine                                                            | g/100 g | In house method-Free, AAA       | 0.01                  | 0.01 |
| **Arginine                                                             | g/100 g | In house method-Free, AAA       | 0.28                  | 0.01 |
| **Proline                                                              | g/100 g | In house method-Free, AAA       | ND                    | 0.01 |
| **Tryptophan                                                           | g/100 g | In house method-Free, AAA       | 0.03                  | 0.01 |
| **Cystine                                                              | g/100 g | In house method-Free, AAA       | ND                    | 0.01 |
| **Sum of 18 free amino acids                                           | g/100 g | In house method-Free, AAA       | 1.52                  | -    |
| *Proportion of collagen peptides with relative molecular weight <10000 | %       | GB 31645-2018 Appendix A GPC/UV | 100.00                | -    |
| *Proportion of collagen peptides with relative molecular weight ≤5000  | %       | GB 31645-2018 Appendix A GPC/UV | 99.97                 | -    |
| *Proportion of collagen peptides with relative molecular weight ≤2000  | %       | GB 31645-2018 Appendix A GPC/UV | 96.32                 | -    |
| *Proportion of collagen peptides with relative molecular weight ≤1000  | %       | GB 31645-2018 Appendix A GPC/UV | 82.78                 | -    |
| *Total average molecular weight (Mw)                                   | -       | GB 31645-2018 appendix A GPC/UV | 544                   | -    |



\* Molecular weight distribution:

| Molecular weight range | Percentage of peak area (%) ( $\lambda$ 220nm) | Number-average molecular weight (Mn) | Weight-average molecular weight (Mw) |
|------------------------|------------------------------------------------|--------------------------------------|--------------------------------------|
| >10000                 | 0                                              | 0                                    | 0                                    |
| 10000-5000             | 0.03                                           | 5557                                 | 5605                                 |
| 5000-3000              | 0.55                                           | 3540                                 | 3593                                 |
| 3000-2000              | 3.10                                           | 2317                                 | 2338                                 |
| 2000-1000              | 13.54                                          | 1339                                 | 1375                                 |
| 1000-500               | 25.32                                          | 635                                  | 650                                  |
| 500-189                | 29.20                                          | 231                                  | 247                                  |
| <189                   | 28.26                                          | /                                    | /                                    |

**Remark:**

Remark:

1.ND = Not Detected

2.LOQ = Limit of Quantitation

3.\* Test item(s) were carried out by SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch ,were not included in the CNAS Accredited Schedule for the laboratory.

4.\* \*Test item(s) were not included in the CNAS Accredited Schedule for our laboratory.

5.Total average molecular weight (Mw) equals to Mw times its relative percentage of peak area, and presumed the Mw of molecular weight range < 189 is 94.5.

**Attention:**

Chinese shall prevail in this report.

This Test Report supersedes the Test Report No. QDF23-053490-03 by SGS-CSTC Standards Technical Services (Qingdao) Co., Ltd. Original test report will be invalid from today.

**Unless otherwise stated the results shown in this test report refer only to the items tested.This document cannot be used for improper publicity, without prior written approval of the SGS. The test report shall only used for scientific research, teaching, internal quality control.**

\*\*\* End \*\*\*

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