

## CERTIFICATE OF ANALYSIS

|                       |   |
|-----------------------|---|
| Product Name          | Dynorphin A [1-32] peptide, Cat.#: 303804 |
| Lot No.               | MTFA32413-2-0208                          |
| Sequence              | YGGFLRRIRPKLKWDNQKRYGGFLRRQFKVVT          |
| Dissolution condition | 100%H <sub>2</sub> O                      |
| Length                | 32AA                                      |
| Modification          | N/A                                       |
| Molecular Weight (MW) | 3984.68                                   |
| Storage               | -20°C                                     |

| Test Items          | Specifications                        | Results  |
|---------------------|---------------------------------------|----------|
| MW by MS            | 3985.45                               | Conforms |
| Purity by HPLC      | >95%                                  | 98.597%  |
| Peptide content     | N/A                                   | N/A      |
| Moisture content    | N/A                                   | N/A      |
| Acetic acid content | N/A                                   | N/A      |
| Appearance          | White to off-white lyophilized powder | Conforms |
| Quantity            | 10mg                                  | 5.0mg*2  |

NovoPro Bioscience Inc. (hereafter NovoPro) warrants material of said quality at the time of sale. It is the sole responsibility of the customers to determine the adequacy of all materials for any intended or specific purpose or use. NovoPro's sole obligation is to replace the material up to the extent of the purchase price. This warranty applies only to products in original packaging and does not apply to a product which has been tampered with or altered in any way in or which has been misused or damaged by accident or negligence. All claims must be received writing (by fax or email) within 30 days from date when product arrive at the destination city and failure to do so shall constitute a waiver by customers for any and all such claims.

Certified by:



Quality Assurance Department

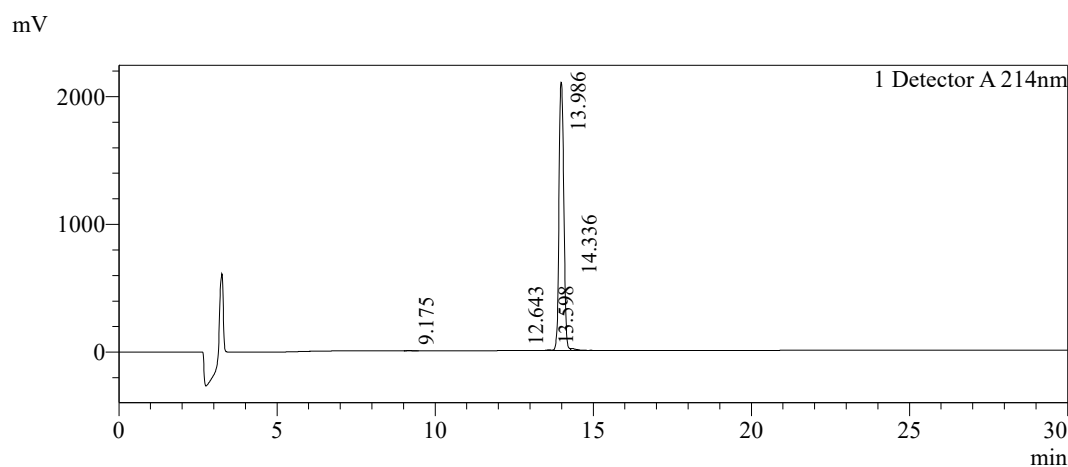
Feb/25/2025



### Sample Information

Order ID :MTFA32413-2  
 Name :Dynorphin A [1-32] peptide  
 Sequence :YGGFLRRIRPKLKWDNQKRYGGFLRRQFKVVT  
 Lot. No :MTFA32413-2-0208  
 Pump A :0.1%Trifluoroacetic in 100% water  
 Pump B :0.1%Trifluoroacetic in 100% acetonitrile  
 Total Flow :1ml/min  
 Wavelength :214nm  
 Analytical column type :Kromasil 100-5-C18 (4.6\*250mm\*5 µm)  
 Dissolution method :100%H<sub>2</sub>O  
 Inj. Volume : 25ul  
 Time Module Action Value  
 0.01 Pumps B.Conc 20  
 30.00 Pumps B.Conc 50  
 33.00 Pumps B.Conc 100  
 38.00 Pumps B.Conc 100  
 40.00 Pumps B.Conc 20  
 50.00 Controller Stop

### Chromatogram

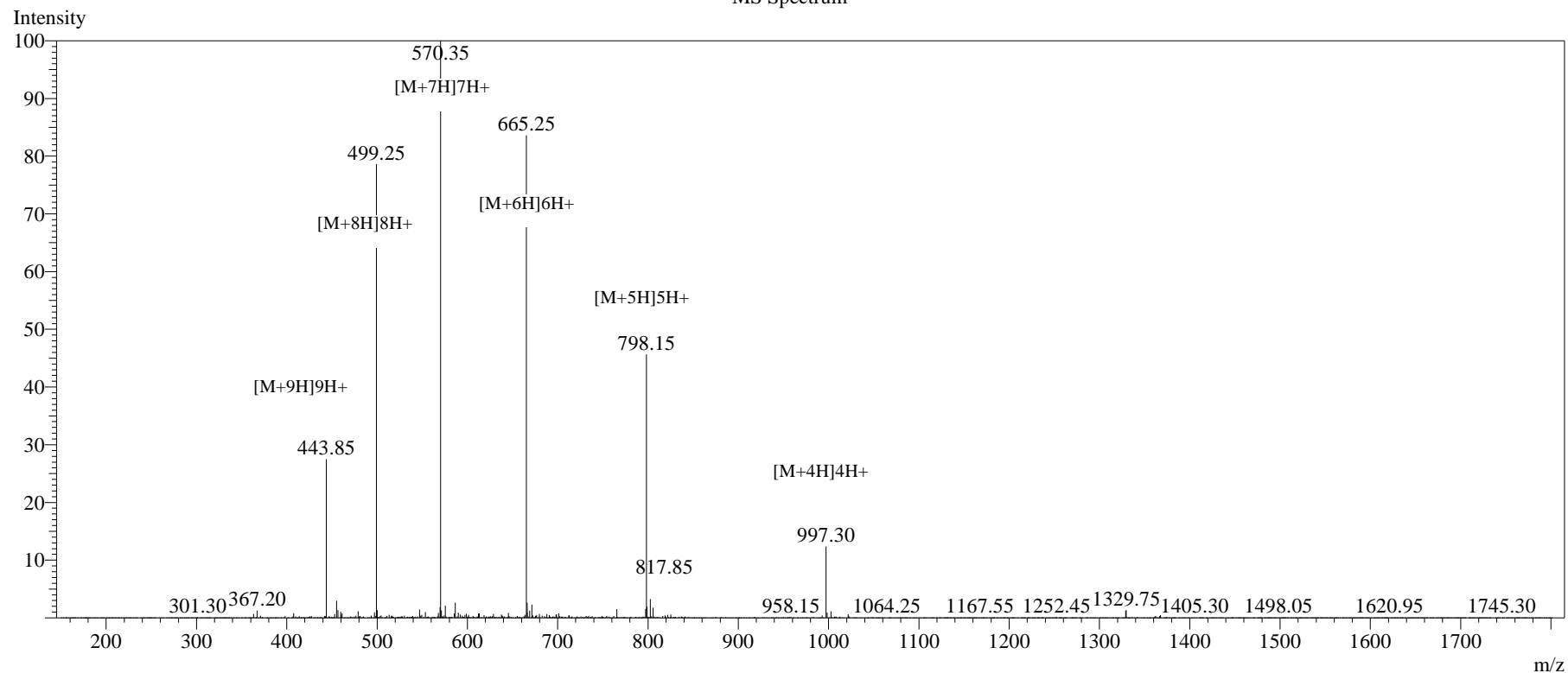


### Peak Table

Detector A 214nm

| Peak# | Ret. Time | Area     | Height  | Area%   |
|-------|-----------|----------|---------|---------|
| 1     | 9.175     | 23572    | 3034    | 0.105   |
| 2     | 12.643    | 3026     | 516     | 0.013   |
| 3     | 13.598    | 66523    | 5208    | 0.296   |
| 4     | 13.986    | 22190229 | 2099176 | 98.597  |
| 5     | 14.336    | 222747   | 16046   | 0.990   |
| Total |           | 22506098 | 2123981 | 100.000 |

## MS Spectrum



## Sample Information

|                    |                               |                     |            |             |                                 |
|--------------------|-------------------------------|---------------------|------------|-------------|---------------------------------|
| Dissolution method | :15% ACN+85% H <sub>2</sub> O | Interface           | :ESI       | Prerod Bias | :+4.5kv                         |
| Date Acquired      | :2025/02/24 10:29:55          | Nebulizing Gas Flow | :1.50L/min | Detector    | :-0.2kv                         |
| Injection Volume   | :0.2ul                        | CDL Temp            | :250°C     | T.Flow      | :0.2ml/min                      |
| Block Temp         | :200                          | CDL Volt            | :0v        | B.conc      | :50% H <sub>2</sub> O/50% ME OH |

|             |                                   |
|-------------|-----------------------------------|
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| Name        | :Dynorphin A [1-32] peptide       |
| Sequence    | :YGGFLRRIRPKLKWDNQKRYGGFLRRQFKVVT |
| Lot.No      | :MTFA32413-2-0208                 |
| Theoretical | :3984.68                          |
| Observed    | :3985.45                          |