

## CERTIFICATE OF ANALYSIS

|                       |                                   |
|-----------------------|-----------------------------------|
| Product Name          | Dynorphin A (1-13), Cat.#: 314998 |
| Lot No.               | MTFB20924-02-260607               |
| Sequence              | YGGFLRRIRPKLK                     |
| Dissolution condition | 100%H <sub>2</sub> O              |
| Modification          | N/A                               |
| Molecular Weight (MW) | 1603.95                           |
| Storage               | -20°C                             |

| Test Items        | Specifications                        | Results  |
|-------------------|---------------------------------------|----------|
| MW by MS          | 1604.00                               | Conforms |
| Purity by HPLC    | >95%                                  | 98.307%  |
| Endotoxin Content | N/A                                   | N/A      |
| TFA solubility    | N/A                                   | N/A      |
| Moisture content  | N/A                                   | N/A      |
| Peptide content   | N/A                                   | N/A      |
| Appearance        | White to off-white lyophilized powder | Conforms |
| Quantity          | 10.0mg                                | 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:



Jul/15/2026

Quality Assurance Department



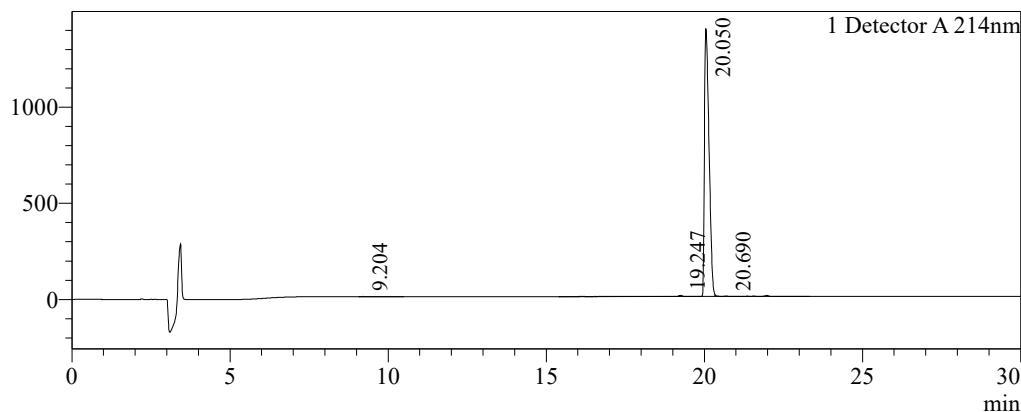
### Sample Information

Order ID :MTFB20924-02  
 Name :Dynorphin A (1-13), Cat.#: 314998  
 Sequence :YGGFLRRIRPKLK  
 Lot. No :MTFB20924-02-260607  
 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 : 15ul

| Time  | Module     | Action | Value |
|-------|------------|--------|-------|
| 0.01  | Pumps      | B.Conc | 10    |
| 30.00 | Pumps      | B.Conc | 40    |
| 33.00 | Pumps      | B.Conc | 100   |
| 38.00 | Pumps      | B.Conc | 100   |
| 40.00 | Pumps      | B.Conc | 10    |
| 50.00 | Controller | Stop   |       |

### Chromatogram

mV



### Peak Table

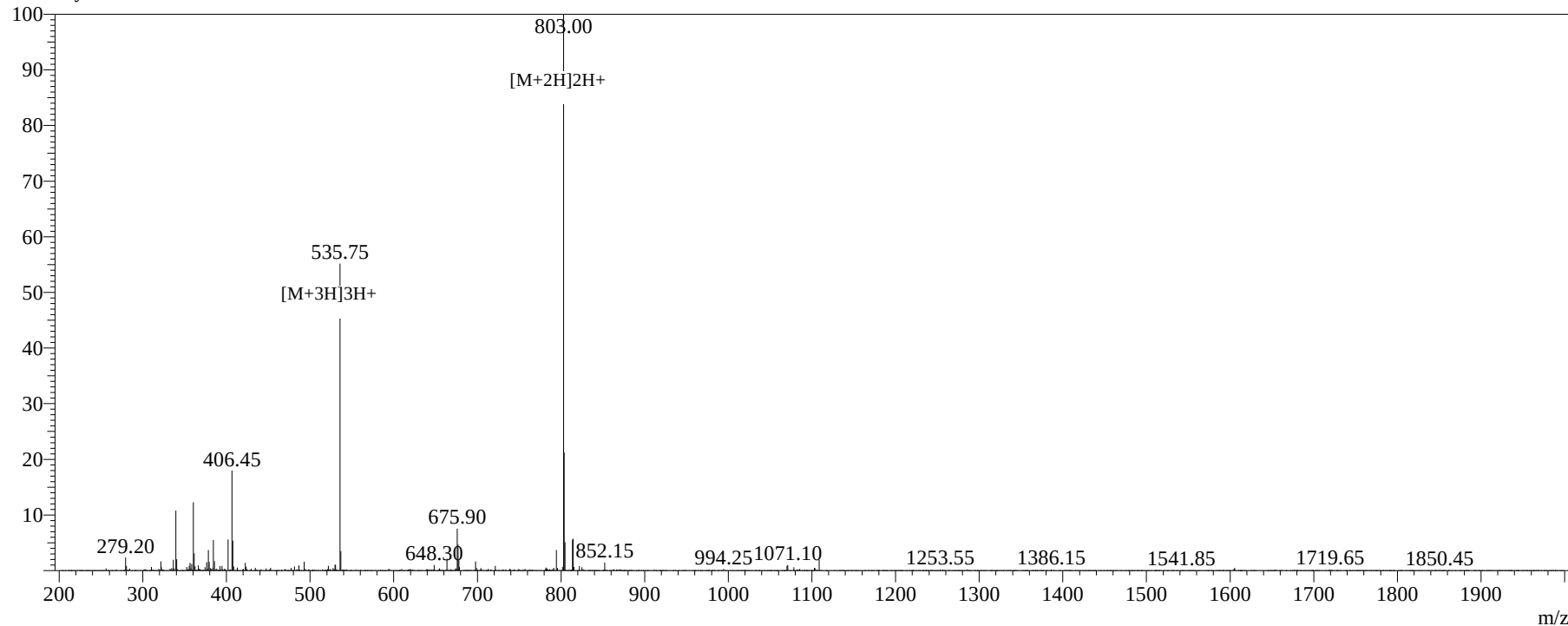
Detector A 214nm

| Peak# | Ret. Time | Area     | Height  | Area%   |
|-------|-----------|----------|---------|---------|
| 1     | 9.204     | 4727     | 180     | 0.033   |
| 2     | 19.247    | 110377   | 6056    | 0.764   |
| 3     | 20.050    | 14195171 | 1394241 | 98.307  |
| 4     | 20.690    | 129336   | 2011    | 0.896   |
| Total |           | 14439611 | 1402488 | 100.000 |

# MS Spectrum

正

Intensity



## Sample Information

|                    |                             |                     |            |             |                              |
|--------------------|-----------------------------|---------------------|------------|-------------|------------------------------|
| Dissolution method | :15%ACN+85%H <sub>2</sub> O | Interface           | :ESI       | Prerod Bias | :+4.5kv                      |
| Date Acquired      | :2026/07/11 13:28:08        | 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%MEOH |

|             |                                    |
|-------------|------------------------------------|
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| Name        | :Dynorphin A (1-13), Cat.#: 314998 |
| Sequence    | :YGGFLRRIRPKLK                     |
| Lot.No      | :MTFB20924-02-260607               |
| Theoretical | :1603.95                           |
| Observed    | :1604.00                           |