

NEWMIND  
47 W. Polk St. STE 100-241  
Chicago, IL 60605



newmind@newmind.com  
www.newmind.com

## CERTIFICATE OF ANALYSIS

### Pramiracetam

(N-anisoyl-2-pyrrolidinone)

Material Lot# 2018045434      Manufacture Date: 04/02/2018  
Country of Origin: China      Retesting Date: 04/01/2021

| <b>Analysis</b> | <b>Claim</b> | <b>Result</b> |
|-----------------|--------------|---------------|
| <b>Assay</b>    | <b>≥98%</b>  | <b>99.55%</b> |

| <b>Test</b> | <b>Claim</b>             | <b>Result</b> |
|-------------|--------------------------|---------------|
| Appearance  | White Crystalline Powder | Complies      |

| <b>Impurity Test</b> | <b>Claim</b> | <b>Result</b> |
|----------------------|--------------|---------------|
| Melting Point        | 48-50°C      | 48.5-49.5°C   |
| Residue on ignition  | ≤0.10%       | 0.07%         |
| Heavy Metals         | ≤10ppm       | Conform       |
| Total impurity       | ≤0.50%       | 0.29%         |
| Water                | ≤1.0%        | 0.85%         |
| Assay                | 89.0-102.0%  | 99.33%        |

Conforms to enterprise standard

Pramiracetam should be stored at or below room temperature in a tightly sealed durable container.  
Pramiracetam should be protected from excess heat, direct sunlight, excess humidity and moisture.  
Pramiracetam has a stable shelf life of 3 years from the date of testing when properly stored.



Colmaric Analyticals, LLC

812 Meadowlark Lane, Goodlettsville, TN 37072  
Telephone: 615-239-8604

### Certificate of Analysis

Synaptent LLC  
47 W Polk Street, 100-241  
Chicago, IL 60654

|              |              |                    |            |
|--------------|--------------|--------------------|------------|
| Product Name | Pramiracetam | Product Lot Number | 2018045434 |
| Report Date  | 07/30/2018   | Laboratory Number  | 10610      |

| Description    | Method | Result     |
|----------------|--------|------------|
| Identification | 1H NMR | Conforms   |
| Assay          | HPLC   | 99 %       |
| Lead           | ICP-MS | 0.008 ppm  |
| Arsenic        | ICP-MS | <0.001 ppm |
| Cadmium        | ICP-MS | 0.003 ppm  |
| Mercury        | ICP-MS | 0.035 ppm  |

*Michael Robil*  
Michael Robil  
QA Auditor

*07/30/18*  
07/30/2018  
Date

