

# **CERTIFICATE OF ANALYSIS**

### 1. Identification

Catalogue Number

Lot Number G597001 712208513-1-1

Product Name

L-Glutamine-13C5

**Structure** 

O 
$$H_{2}$$
  $H_{2}$   $H_{3}$   $H_{2}$   $H_{2}$   $H_{3}$   $H_{2}$   $H_{2}$   $H_{2}$   $H_{2}$   $H_{2}$   $H_{2}$   $H_{2}$   $H_{2}$   $H_{2}$   $H_{3}$   $H_{2}$ 

#### Synonyms

(S)-2,5-Diamino-5-oxopentanoic Acid-13C5 ; 2-Aminoglutaramic Acid-13C5 ; Acustasin-13C5 ; Aesgen 14-13C5 ; Cebrogen-13C5 ; Glumin-13C5 ; L-2-Aminoglutaramidic Acid-13C5 ; L-Glutamic Acid γ-Amide-13C5 ; Levoglutamide-13C5 ; NSC 27421-13C5 ; Saforis-13C5 ; Stimulina-13C5 ; γ-Glutamine -13C5 ;

**CAS Number** Solubility

184161-19-1 Aqueous Acid (Slightly), Water

(Slightly)

Source of Product Molecular Formula

 $^{13}C_5H_{10}N_2O_3$ N/A

Molecular Weight Purity 151.11 >95% **Shipping Condition** 

This Product Is Stable To Be Shipped At Room

Temperature

**Long Term Storage Conditions** 

4°C

## 2. Warnings

Not Determined

3. Analytical Information

<u>Tests</u>	<u>Specifications</u>	<u>Results</u>
Appearance	White to Off-White Solid	White to Off-White Solid
NMR	Conforms to Structure	Conforms
CNMR	Conforms to Structure	Conforms
Elemental Analysis	Conforms	%C: 39.82, %H: 6.61, %N: 18.43
HPLC Purity	>95%	99.95% (ELSD)
MS	Conforms to Structure	Conforms
Isotopic Purity	>95%	99.2%
Specific Rotation	Report Result	+4.2° (c = 0.2, Water)

#### Additional Information

**Product Quality Specialist** 

Normalized Intensity:  ${}^{13}C_0 = 0.00\%$ ,  ${}^{13}C_1 = 0.03\%$ ,  ${}^{13}C_2 = 0.05\%$ ,  ${}^{13}C_3 = 0.07\%$ ,  ${}^{13}C_4 = 3.77\%$ ,  ${}^{13}C_5 = 96.09\%$ 

Manager, Quality Assurance

Purity is based on the analytical results of the tests performed. NMR and Elemental Analysis (if available) may have an accuracy of ± 2%. Isotopic purity is based on mass distribution observed.

The contents of the specifications are subject to change without advance notice, and the specification values displayed here are the most up to date values.

4. Signatures

Reviewed by C of A Approved by Reviewed by **Test Date Retest Date** 4/10/2025 4/8/2029 Nicole Yip Toni Rantanen Chanell Chu

Quality Assurance Associate

101 Milani Blvd., Vaughan, ON., L4H 4M4 Canada Tel: (416) 665-9696 E-mail: Orders.TRC@LGCGroup.com Website: www.lgcstandards.com