

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: [www.sigmaaldrich.com](http://www.sigmaaldrich.com)

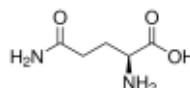
Email USA: [techserv@sial.com](mailto:techserv@sial.com)

Outside USA: [eurtechserv@sial.com](mailto:eurtechserv@sial.com)

## Product Specification

Product Name:  
L-Glutamine – meets USP testing specifications, suitable for cell culture, 99.0–101.0%, from non-animal source

**Product Number:** G8540  
**CAS Number:** 56-85-9  
**MDL:** MFCD00008044  
**Formula:** C<sub>5</sub>H<sub>10</sub>N<sub>2</sub>O<sub>3</sub>  
**Formula Weight:** 146.14 g/mol



### TEST

### Specification

Origin Must Be Non-Animal Source	Conforms
Infrared spectrum	Conforms to Structure
Specific Rotation C = 10 in 2 M HCl at 20 Deg C	31.5 - 33.0 °
Specific Rotation C = 4 in H <sub>2</sub> O at 20 deg C	6.3 - 7.3 °
Chloride Content	< = 0.020%
Ammonium	< = 0.10%
Sulfate	< = 0.020%
Iron (Fe)	< = 10 ppm
Arsenic (As)	< = 1 ppm
Loss on Drying	≤ 0.30 %
Residue on ignition (Ash)	≤ 0.10 %
Ninhydrin-Positive Substances	Conforms
pH 2 % in H <sub>2</sub> O	4.5 - 6.0
Assay (Dry Basis)	99.0 - 101.0
Note Meets USP testing specifications	-----
Recommended Retest Period 3 years	-----
Residual Solvents	Meets Requirements
Endotoxin Level 30 mg/mL	≤ 1 EU/ml

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at [Sigma-Aldrich.com](http://Sigma-Aldrich.com). For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

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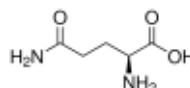
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C<sub>5</sub>H<sub>10</sub>N<sub>2</sub>O<sub>3</sub>

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TEST	Specification
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Cell Culture Test	Pass
Cell Line	Attached Cell Line
Cell Line	Attached Cell Line
Cell Line	Attached Cell Line
Appearance (Color)	White
Appearance (Form)	Powder
Solubility (Color)	Colorless
Solubility (Turbidity)	Clear
25mg/ml in H <sub>2</sub> O	

Specification: PRD.4.ZQ5.10000039714

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