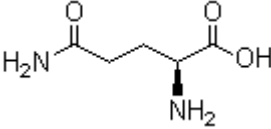




HANGZHOU DINGYAN CHEM CO., LTD
Tel:86-571-87157530 Fax:86-571-87156470
Email:sales@dingyanchem.com

CERTIFICATE OF ANALYSIS

NO: DYC051508202

Product name	L-GLUTAMINE
CAS Number	56-85-9
Molecule Structure	
Molecule Formula	C ₅ H ₁₀ N ₂ O ₃
Batch No.	20150415
Manuf.&Exp. Date	2015-04-15
Testing Date:	2015-04-15

Tests	Limits	Test results
Description	White crystals or crystalline powder	conforms
Identification(IR)	concordant with the reference spectrum	conforms
assay	99.0~101.0%	99.6%
PH	4.5~6.0	4.5
Specific rotation[α] _D ²⁰	+34.2 ° ~ +36.2 °	+35.5 °
State of solution (Transmittance T ₄₃₀)	clear & colorless ≥98.0%	99.4%
Chloride(Cl)	≤0.02%	<0.02%
Ammonium(NH ₄)	≤0.10%	<0.10%
Sulfate(SO ₄)	≤0.02%	<0.02%
Iron(Fe)	≤10ppm	<10ppm
Heavy metals(Pb)	≤10ppm	<10ppm
Arsenic(As)	≤1ppm	<1ppm
Other amino acids	conforms	conforms
Loss on drying	≤0.30%	0.16%
Residue on ignition	≤0.10%	0.07%

ADD:RM 1118, NO.I BUILDING, BAIYUN TOWER, JIANGGAN AREA, HANGZHOU CITY, CHINA



HANGZHOU DINGYAN CHEM CO., LTD

Tel:86-571-87157530 Fax:86-571-87156470

Email:sales@dingyanchem.com

Conclusion: Passed test according to the Standard of AJI92.

QUALITY CONTROL:

Hangzhou Dingyan Chem Co., Ltd.

Quality Control Buddy...chan

(Signature)

CHECK:姚仙娟

INSPECTOR: 刘清风