



CERTIFICATE OF ANALYSIS

Catalog Number: 04-1554

Product Name: **L- γ -GLUTAMYL-L-GLUTAMIC ACID**
(H-Glu(Glu-OH)-OH)

CAS Number: [1116-22-9]

Lot Number: 1000007006

Chemical Formula: C₁₀H₁₆N₂O₇

Molecular Weight: 276.25

Tests	Results
Appearance	white powder
Appearance of solution	clear, colorless solution (50 mg/mL in water)
Identification (elemental analysis)	Theory Found C = 43.5% C = 43.2% H = 5.8% H = 6.0% N = 10.1% N = 10.0%
Identification (TLC)	complies with authentic material
Melting point	187 °C
Specific optical rotation	$[\alpha]_D^{24} = +4.7^\circ$ (3% in 0.5 M hydrochloric acid)
Purity (TLC)	> 99 %
TLC conditions	n-butanol/acetic acid/H ₂ O 4/2/2 isopropanol/ammonia conc. 1/1 methanol/chloroform/ammonia 17% 2/2/1 plate: silicagel 60 F ₂₅₄ detected by: UV, ninhydrin, TMB,
Assay (elemental analysis)	98.4% (Nth 10.14% ; Nfd 9.98%)

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