



CERTIFICATE OF ANALYSIS

Product	L-GLUTAMIC ACID, FREE ACID FCC
Grade	High Purity
Product Code	GB0221
Formula	C ₅ H ₉ NO ₄
MW	147.13
CAS#	56-86-0
Lot No	

Test Items	Specifications	Results
Appearance	White crystals or crystalline powder	
Identification (IR)	Passes test	
Assay	99.0%-100.5%	
pH	3.0 ~ 3.5	
Specific Rotation(Dried)	+31.5°-+32.5°	
Chloride	≤0.02%	
Ammonium	≤0.02%	
Sulfate	≤0.02%	
Iron	≤10ppm	
Heavy Metals (as Pb)	≤10ppm	
Arsenic (as As)	≤ 1ppm	
Other Amino-acid	Passes test	
State of solution	Clear and colorless	
	≥98%	
Loss on Drying	≤0.1%	
Residue on ignition	≤0.1%	

Storage: Store at room temperature. Protect from moisture.