



Certificate of Analysis

1.00291.0000 L-Glutamic acid for biochemistry
Batch K48612691

	Spec. Values		Batch Values	
Assay (alkalimetric, calculated on dried substance)	≥ 99.0	%	99.8	%
Identity (IR-spectrum)	passes test		passes test	
Appearance	white to almost white, crystalline powder or colorless crystals		passes test	
Appearance of solution (0.5 mol/l, hydrochloric acid 1 mol/l)	clear and colorless		passes test	
Spec. rotation (α 20/D, 50 g/l, hydrochloric acid 1 mol/l, calc. on dried substance)	+31.5 to +32.5	°	+32.2	°
UV-Absorption (260 nm, 0.5 mol/l, 1 cm, hydrochloric acid 1 mol/l)	≤ 0.10		0.05	
UV-Absorption (280 nm, 0.5 mol/l, 1 cm, hydrochloric acid 1 mol/l)	≤ 0.10		0.04	
Chloride (Cl)	≤ 0.02	%	≤ 0.02	%
Sulfate (SO ₄)	≤ 0.01	%	≤ 0.01	%
Heavy metals (as Pb)	≤ 0.001	%	≤ 0.001	%
As (Arsenic)	≤ 0.0005	%	≤ 0.0005	%
Ca (Calcium)	≤ 0.001	%	≤ 0.001	%
Co (Cobalt)	≤ 0.0005	%	≤ 0.0005	%
Fe (Iron)	≤ 0.0005	%	≤ 0.0005	%
K (Potassium)	≤ 0.0005	%	≤ 0.0005	%
Mg (Magnesium)	≤ 0.0005	%	≤ 0.0005	%
Na (Sodium)	≤ 0.01	%	≤ 0.01	%
NH ₄ (Ammonium)	≤ 0.01	%	≤ 0.01	%
Zn (Zinc)	≤ 0.0005	%	≤ 0.0005	%
Foreign amino acids	≤ 0.3	%	≤ 0.3	%
Other ninhydrine positive substances	≤ 0.1	%	≤ 0.1	%
Loss on drying (105 °C; 3 h)	≤ 0.3	%	< 0.1	%

Minimum shelf life (DD.MM.YYYY) 31.01.2022

Dr. Ralf Burgert
Responsible laboratory manager quality control

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