



## CERTIFICATE OF ANALYSIS

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Product	L-Valine
Grade	Ultra Pure
Product Code	VB0172
Formula	C <sub>5</sub> H <sub>11</sub> NO <sub>2</sub>
MW	117.15
CAS#	72-18-4
Lot No	

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Test Items	Specifications	Results
Appearance	White solid	
Assay	98.5~101.5%	
Identification	PASS	
pH	5.5 ~ 7.0	
Specific Rotation	+26.0° ~ +29.0°	
Chloride (Cl)	≤0.05%	
Sulfate (SO <sub>4</sub> )	≤0.03%	
Iron (Fe)	≤30ppm	
Heavy metals (Pb)	≤15ppm	
Arsenic (As)	≤1.5ppm	
Loss on Drying	≤0.1%	
Residue on Ignition	≤0.2%	
Organic volatile impurities	Meet requirements	

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Storage: 18~25°C.