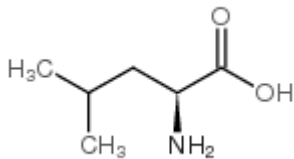


**HANGZHOU DINGYAN CHEM CO., LTD**

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

Email:sales@dingyanchem.com

CERTIFICATE OF ANALYSIS**NO: DYC051508244**

Product name	L-Leucine
CAS Number	61-90-5
Molecule Structure	
Molecule Formula	C6H13NO2
Batch number	20150725
Manufacture Date	2015-07-25
Testing date	2015-07-28

Item		Specifications	Results
Appearance		White crystalline powder	White crystalline powder
Assay, %		98.5~101.5	99.3
Specific optical rotation		+14.9° ~ +17.3°	+15.3°
PH value		5.5 ~ 7.0	5.57
Chloride(as Cl),%	max	0.05	<0.05
Sulphate(as SO ₄),%	max	0.03	<0.03
Iron (as Fe) ,%	max	0.003	<0.003
Heavy metals (as Pb),%	max	0.0015	<0.0015
Loss on drying, %	max	0.20	0.11
Residue on ignition, %	max	0.40	0.24
Chromatographic purity, %	Individual Impurities max	0.5	0.29
	Total Impurities max	2.0	1.20
Conclusion: This product conforms to requirements of USP36 grade standard.			

QUALITY CONTROL:
Hangzhou Dingyan Chem Co., Ltd.
Quality Control ... Buddy ... Chan
(Signature)

CHECK: 姚仙娟

INSPECTOR: 刘清风

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