

ICG **INDOFINE Chemical Company, Inc.**

121 Stryker Lane, Bldg. 30, Suite 1 • Hillsborough, NJ 08844 • U.S.A.

Phone: (908) 359-6778 • FAX: (908) 359-1179

website: www.indofinechemical.com

e-mail: chemical@indofinechemical.com

CERTIFICATE OF ANALYSIS

Cat. No.: P-004

Product: **PIPERLONGUMINE**
(Piplartine)

CAS Number: [20069-09-4]

Lot No.: 1112183

Source: Piper longum roots

Molecular Formula: C₁₇H₁₉NO₅

Molecular Weight: 317.31

Melting Point: 124-126°C

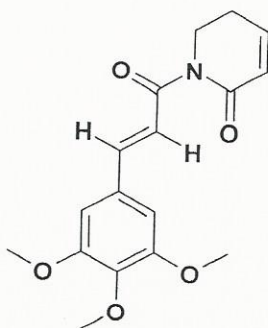
Appearance: Off white powder

Solubility: Soluble in Chloroform

TLC: Hexane:Ethyl acetate (7:3)

Water content(KF): 0.46%

Assay(HPLC): 98.78%





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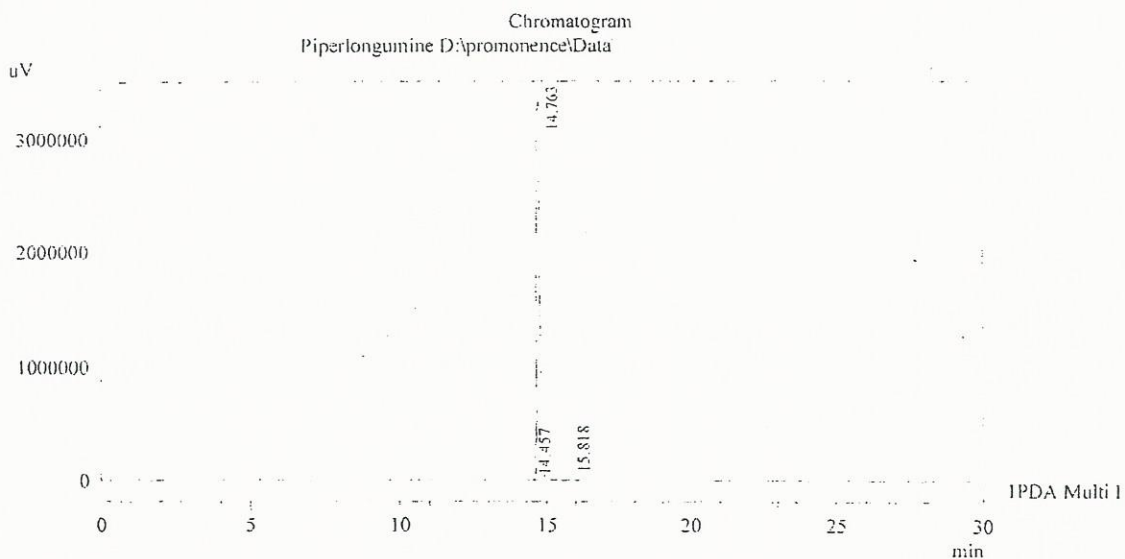
e-mail: chemical@indofinechemical.com

HPLC ANALYSIS

Acquired by : Admin
 Sample Name : Piperlongumine
 Sample ID : 262 gms uniform lot
 Injection Volume : 20 uL
 Data Filename : 111211E.lcd
 Method Filename : Linear Gradient.M.lcm

Cat. No.: P-004
 Product name: Piperlongumine
 Lot No.: 1112183

Column : LUNA C-18(2), (250mm x4.6mm 5.0µ)
 Flow : 1.000 mL/min.
 Mobile Phase : A(0.05% TFA in water) B(Acetonitrile)
 0.01 90 10
 12.0 10 90
 20.0 10 90
 25.0 90 10
 30.0 90 10



PeakTable

Peak#	Name	Ret. Time	Area	Area %	Relative Retention Time
1	RT:14.457	14.457	92378	0.33	0.98
2	Piperlongumine	14.763	27400609	98.78	1.00
3	RT:15.818	15.818	246695	0.89	1.07
Total			27739682	100.00	

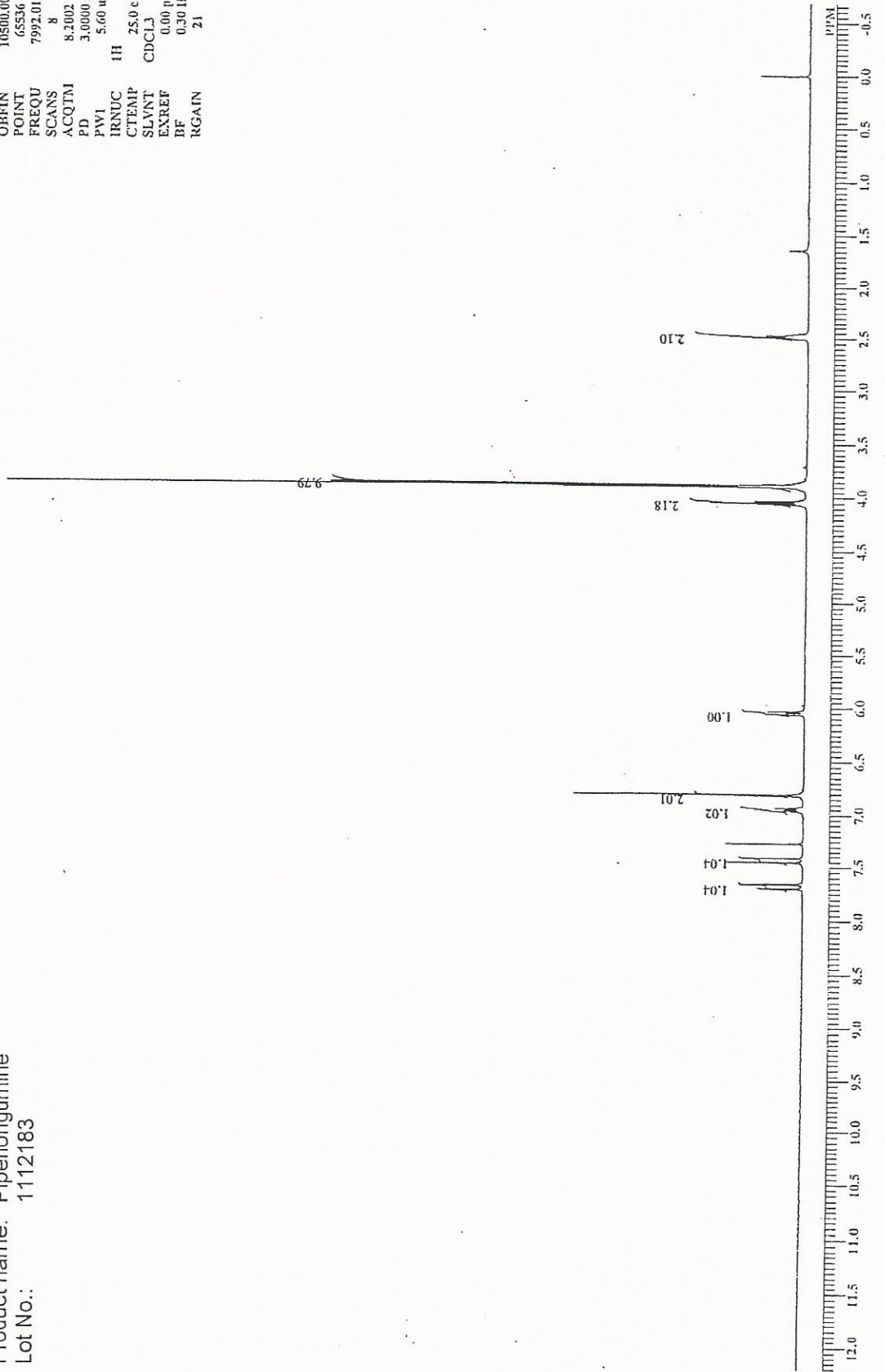


INDOFINE Chemical Company, Inc.
121 STRYKER LANE
BLDG. 30, SUITE 1
HILLSBOROUGH, NJ 08844

PPRG-262g¹ 1H NMR CDCl₃

Cat. No.: P-004
Product name: Piperlongumine
Lot No.: 1112183

DNAME PPRG-262g¹ 1H NMR CDCl₃
COMINT PPRG-262g¹ 1H NMR CDCl₃
OBNUC 1H
EXMID NON
OBPRQ 399.65 MHz
OBSET 124.00 KHz
ORFIN 10500.00 Hz
POINT 65536
FREQU 7992.01 Hz
SCANS 8
ACQTM 8.2002 sec
PD 3.0000 sec
PW1 5.60 usec
IRNUC 1H
CTEMP 25.0 c
SLVNT CDCl₃
EXREF 0.00 ppm
BF 0.30 Hz
RGAIN 21



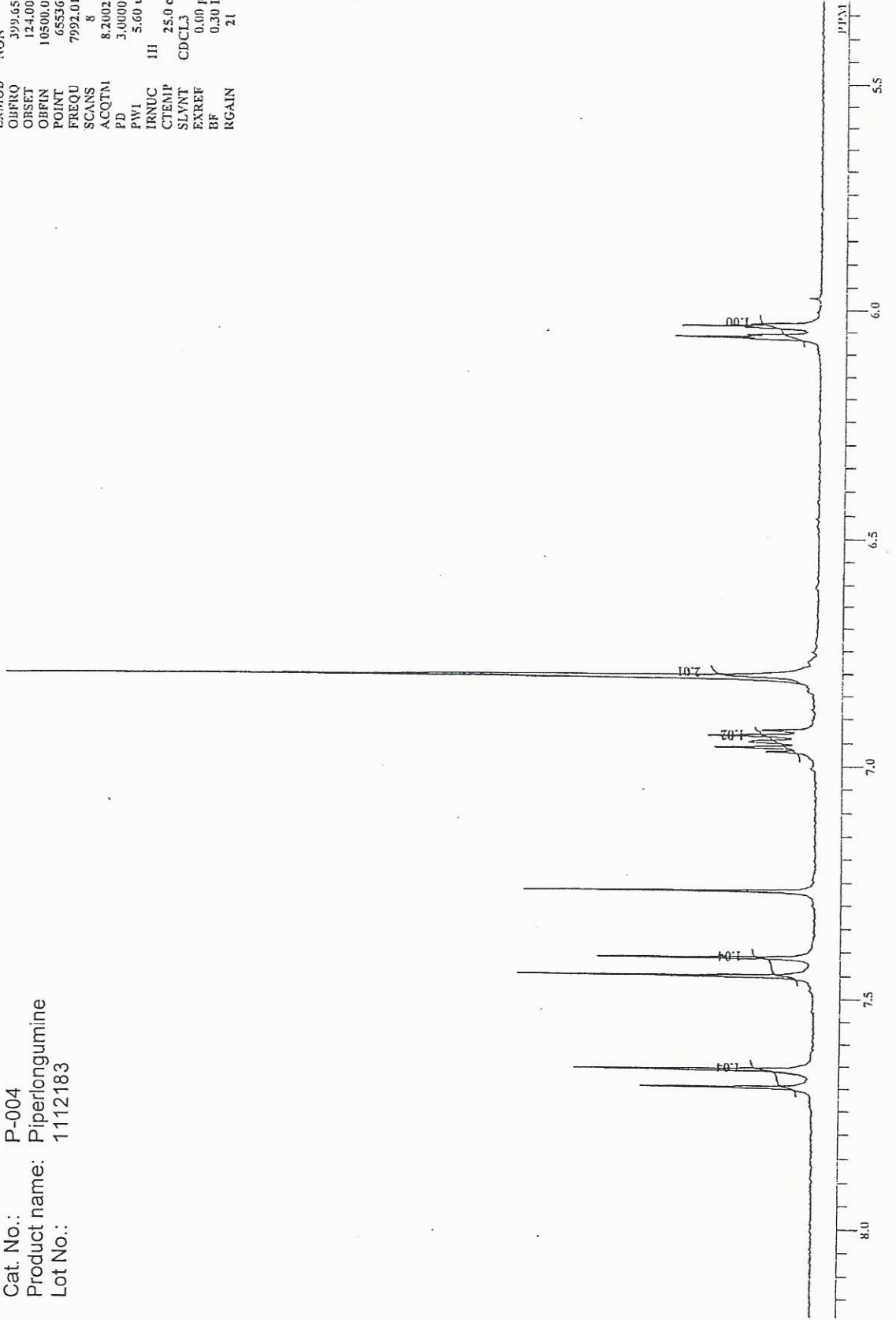


INDOFINE Chemical Company, Inc.
121 STRYKER LANE
BLDG. 30, SUITE 1
HILLSBOROUGH, NJ 08844

PPRG-262gf 1H NMR CDC13

Cat. No.: P-004
Product name: Piperlongumine
Lot No.: 1112183

DFILE PPRG-262gf 1H.n1s
COMNT PPRG-262gf 1H NMR CDC13
OBNUC 1H
EXMOD NON
OBFRQ 399.65 MHz
ORSET 12.400 KHz
OBFIN 10500.00 Hz
POINT 65536
FREQU 7992.01 Hz
SCANS 8
ACQTM 8.2002 sec
PD 3.0000 sec
PWI 5.60 usec
IRNUC 1H
CTEMP 25.0 c
SLVNT CDCL3
EXREF 0.00 ppm
BF 0.30 Hz
RGAIN 21



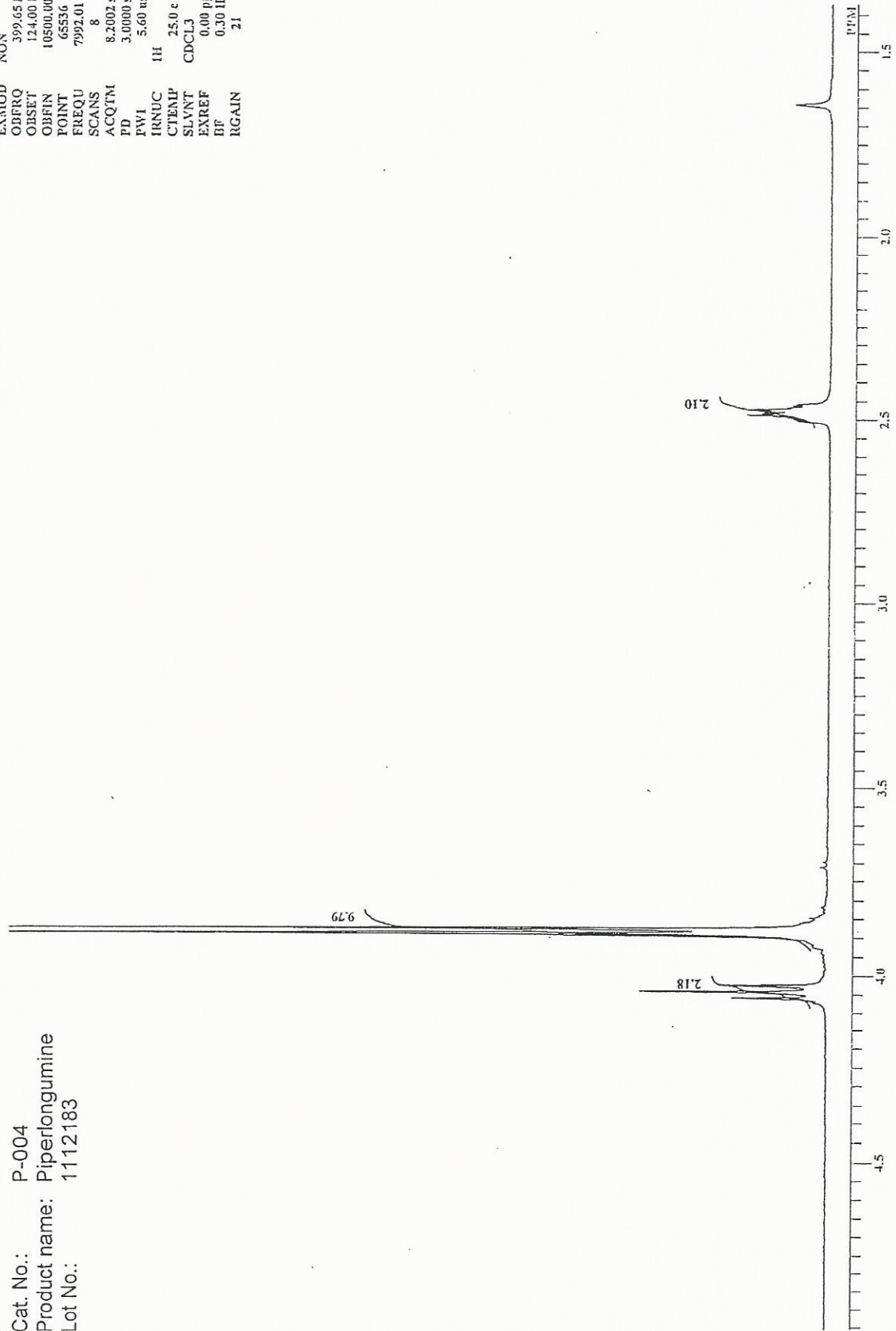


INDOFINE Chemical Company, Inc.
121 STRYKER LANE
BLDG. 30, SUITE 1
HILLSBOROUGH, NJ 08844

PPRG-262gr 1H NMR CDCl3

Cat. No.: P-004
Product name: Piperlongumine
Lot No.: 1112183

DPHLE PPRG-262gr 1H.nab
COMINT PPRG-262gr 1H NMR CDCl3
OBNUC 1H
EXMOD NON
OBFRQ 399.65 MHz
OBSET 124.00 KHz
OBFIN 10500.00 Hz
POINT 65536
FREQU 7992.01 Hz
SCANS 8
ACQTM 8.2002 sec
PD 3.0000 sec
PW1 5.60 usec
IRNUC 1H
CTEMP 25.0 c
SLVNT CDCL3
EXREF 0.00 ppm
BF 0.30 Hz
RGAIN 21





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Sample Information
Sample Name : PPRG-2b2gv
B.No : -
Data File : PPRG-2b2gv.lcd
Method File : Test1(APCI).lcm
Acquired by : KK

Cat. No.: P-004
Product name: Piperlongumine
Lot No.: 1112183

MS Spectrum Graph

