



812 Meadowlark Lane, Goodlettsville, TN 37072
 Telephone: 615-239-8604

Certificate of Analysis

Product Name	LGD-4033	Product Lot Number	20180829
Report Date	11/06/2018	Laboratory Number	11052

Description	Method	Result
Identification	¹ H NMR	Conforms
Assay	HPLC	100.3 %
Lead	ICP-MS	0.014 ppm
Arsenic	ICP-MS	< 0.001 ppm
Cadmium	ICP-MS	0.0010 ppm
Mercury	ICP-MS	0.046 ppm
Residual Solvent Class 1		
Benzene	USP <467>	<0.1 ppm
Carbon Tetrachloride	USP <467>	<0.1 ppm
1,2-Dichloroethane	USP <467>	<0.1 ppm
1,1-Dichloroethane	USP <467>	<0.1 ppm
1,1,1-Trichloroethane	USP <467>	<0.1 ppm
Residual Solvent Class 2		
Acetonitrile	USP <467>	<0.1 ppm
Chlorobenzene	USP <467>	<0.1 ppm
Chloroform	USP <467>	<0.1 ppm

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Cumene	USP <467>	<0.1 ppm
Cyclohexane	USP <467>	<0.1 ppm
1,2-Dichloroethene	USP <467>	<0.1 ppm
1,2-Dimethoxyethane	USP <467>	<0.1 ppm
N,N-Dimethylacetamide	USP <467>	<0.1 ppm
N,N-Dimethylformamide	USP <467>	<0.1 ppm
1,4-Dioxane	USP <467>	<0.1 ppm
2-Ethoxyethanol	USP <467>	<0.1 ppm
Ethylene Glycol	USP <467>	<0.1 ppm
Formamide	USP <467>	<0.1 ppm
Hexane	USP <467>	<0.1 ppm
Methanol	USP <467>	<0.1 ppm
2-Methoxyethanol	USP <467>	<0.1 ppm
Methylbutylketone	USP <467>	<0.1 ppm
Methylcyclohexane	USP <467>	<0.1 ppm
Methylene Chloride	USP <467>	<0.1 ppm
N-Methylpyrrolidone	USP <467>	<0.1 ppm
Nitromethane	USP <467>	<0.1 ppm
Pyridine	USP <467>	<0.1 ppm
Sulfolane	USP <467>	<0.1 ppm
Tetrahydrofuran	USP <467>	<0.1 ppm
Tetralin	USP <467>	<0.1 ppm
Toluene	USP <467>	<0.1 ppm
Trichloroethylene	USP <467>	<0.1 ppm
Xylene	USP <467>	<0.1 ppm
Residual Solvent Class 3		
Acetic Acid	USP <467>	<0.1 ppm

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Acetone	USP <467>	<0.1 ppm
Anisole	USP <467>	<0.1 ppm
1-Butanol	USP <467>	<0.1 ppm
2-Butanol	USP <467>	<0.1 ppm
Butyl Acetate	USP <467>	<0.1 ppm
Tert-Butylmethyl Ether	USP <467>	<0.1 ppm
Dimethyl Sulfoxide	USP <467>	<0.1 ppm
Ethanol	USP <467>	<0.1 ppm
Ethyl Acetate	USP <467>	<0.1 ppm
Ethyl Ether	USP <467>	<0.1 ppm
Ethyl Formate	USP <467>	<0.1 ppm
Formic Acid	USP <467>	<0.1 ppm
Heptane	USP <467>	<0.1 ppm
Isobutyl Acetate	USP <467>	<0.1 ppm
Isopropyl Acetate	USP <467>	<0.1 ppm
Methyl Acetate	USP <467>	<0.1 ppm
3-Methyl-1-Butanol	USP <467>	<0.1 ppm
Methylethylketone	USP <467>	<0.1 ppm
Methylisobutylketone	USP <467>	<0.1 ppm
2-Methyl-1-Propanol	USP <467>	<0.1 ppm
Pentane	USP <467>	<0.1 ppm
1-Pentanol	USP <467>	<0.1 ppm
1-Propanol	USP <467>	<0.1 ppm
2-Propanol	USP <467>	<0.1 ppm
Propyl Acetate	USP <467>	<0.1 ppm
Other Residual Solvent		
1,1diethoxypropane	USP <467>	<0.1 ppm

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1,1-Dimethoxymethane	USP <467>	<0.1 ppm
2,2-Dimethoxypropane	USP <467>	<0.1 ppm
Isooctane	USP <467>	<0.1 ppm
Isopropyl Ether	USP <467>	<0.1 ppm
Methyl Isopropyl Ketone	USP <467>	<0.1 ppm
Methyltetrahydrofuran	USP <467>	<0.1 ppm

Venogen 

Michael Robil

Michael Robil
QA Auditor

11/06/18

11/06/2018
Date

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