

FLORA RESEARCH LABORATORIES, LLC.
ANALYTICAL REPORT

July 9, 2020 FRL Sample ID: 200625006-1

Page 1 of 2

DATE: July 9, 2020

CLIENT: Brett Hales

JOB: J20-0625-B

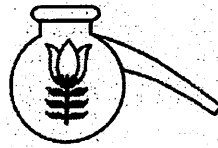
REPORT: Qualitative Screen for PDE-5 Inhibitor Drugs and Analogues by High Performance Liquid Chromatography-DAD-Accurate Mass Q-TOF (HPLC-DAD-AM-Q-TOF)

FRL SAMPLE ID: 200625006-1

CLIENT SAMPLE ID: GL01/EXP05/23 May2020

ANALYSIS DATA: (ND= not detected @500 ug/g (PPM), POS= positive, TRACE= trace detected)

Compound	Result	Compound	Result
(-)-Trans-tadalafil (ent-Tadalafil)	ND	Lodenafil carbonate	ND
Acetaminotadalafil	ND	Mirodenafil	ND
Acetil acid	ND	Mutaprodenafil	ND
Acetildenafil (Hongdenafil)	ND	N-butylinortadalafil	ND
Acetylvardenafil	ND	N-desethylvardenafil	ND
Aildenafil (Dimethylsildenafil, Methisosildenafil)	ND	N-desmethylsildenafil	ND
Aminotadalafil	ND	Nitrodenafil	ND
Avanafil	ND	Nitroso-prodenafil	ND
Benzylsildenafil	ND	N-octylinortadalafil (Octylinortadalafil)	ND
Carbodenafil (Fondenafil)	ND	Noracetildenafil (Demethylhongdenafil)	ND
Chlorodenafil	ND	Nomeosildenafil (Piperidinosildenafil)	ND
Chloropretadalafil	ND	Nomeovardenafil	ND
Cinnamylidenafil	ND	Nortadalafil (Demethyltadalafil)	ND
Cyclopentynafil	ND	Oxohongdenafil	ND
Dapoxetine	ND	Phentolamine	ND
Depiperazinothiosildenafil	ND	Piperazinonafil (Piperazonifil, Dihydroacetildenafil)	ND
Descarbonsildenafil	ND	Piperidinoacetildenafil (Piperiacetildenafil)	ND
Desmethylcarbodenafil	ND	Piperidinovardenafil (Piperidenafil, Pseudovardenafil)	ND
Dimethylacetildenafil	ND	Propoxyphenyl aildenafil	ND
Dioxo-acetildenafil	ND	Propoxyphenyl hydroxyhomosildenafil (Methylhydroxyhomosildenafil)	ND
Dithio-desmethylcarbodenafil	ND	Propoxyphenyl sildenafil	ND
Gendenafil	ND	Propoxyphenyl thioaildenafil (Propoxyphenyl thiomethisosildenafil)	ND
Gisadenafil	ND	Propoxyphenyl thiohydroxyhomosildenafil	ND
Homosildenafil	ND	Sildenafil	ND
Hydroxyacetildenafil (Hydroxyhongdenafil)	ND	SR-aminotadalafil ((+)-trans-aminotadalafil)	ND
Hydroxychlorodenafil	ND	Tadalafil (Tildenafil)	ND
Hydroxyhomosildenafil	ND	Thioaildenafil (Sulfoaildenafil, Thiomethisosildenafil, Sulfodimethyl sildenafil, Dimethylthiosildenafil)	ND
2-Hydroxypropylinortadalafil	ND	Thiohomosildenafil (Sulfohomosildenafil, Homosildenafil thione)	ND
Hydroxythiohomosildenafil (hydroxyhomosildenafil thione, sulfohydroxyhomosildenafil)	ND	Thioquinapiperifil (KF31327)	ND
Hydroxythiovardenafil	ND	Thiosildenafil (Sulfosildenafil, Sildenafil thione)	ND
Hydroxyvardenafil	ND	Udenafil	ND
Imidazosagatriazinone (Desulfovardenafil)	ND	Vardenafil	ND
Isopiperazinonafil	ND	Xanthoanthrafil (Benzamidenafil)	ND



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DISCUSSION: The sample was prepared with a split spike for quality control. Analysis is conducted by HPLC using DAD and Accurate Mass Q-TOF Mass Spectrometry. The DAD traces are examined for peaks giving spectra indicative of known PDE-5 inhibitors. MS data is processed and searched against a custom built PCDL Database composed of the AOAC SMPR 2015.12 Working Group Accurate Mass Compound List. Accurate mass and formulae generated are compared to known PDE-5 inhibitors. No PDE-5 inhibitors were detected in this sample.

CONCLUSION: No PDE-5 inhibitors were detected in this sample.

Assayed/Reported By:

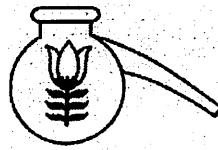
Chanze Jennings
Chanze Jennings, Scientist I

Date: 7-9-2020

QC Approval By:

[Signature]
James Neal-Kababick, Laboratory Director

Date: 7/9/20



**FLORA RESEARCH LABORATORIES, LLC.
ANALYTICAL REPORT**

July 9, 2020 FRL Sample ID: 200625007-1

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DATE: July 9, 2020

CLIENT: Brett Hales

JOB: J20-0625-B

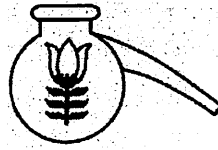
REPORT: Qualitative Screen for PDE-5 Inhibitor Drugs and Analogues by High Performance Liquid Chromatography-DAD-Accurate Mass Q-TOF (HPLC-DAD-AM-Q-TOF)

FRL SAMPLE ID: 200625007-1

CLIENT SAMPLE ID: GL01/EXP01/23 January2020

ANALYSIS DATA: (ND= not detected @500 ug/g (PPM), POS= positive, TRACE= trace detected)

Compound	Result	Compound	Result
(-)-Trans-tadalafil (ent-Tadalafil)	ND	Lodenafil carbonate	ND
Acetaminotadalafil	ND	Mirodenafil	ND
Acetil acid	ND	Mutaprodenafil	ND
Acetildenafil (Hongdenafil)	ND	N-butylnortadalafil	ND
Acetylvardenafil	ND	N-desethylvardenafil	ND
Aildenafil (Dimethylsildenafil, Methisosildenafil)	ND	N-desmethylsildenafil	ND
Aminotadalafil	ND	Nitrodenafil	ND
Avanafil	ND	Nitroso-prodenafil	ND
Benzylsildenafil	ND	N-octylnortadalafil (Octylnortadalafil)	ND
Carbodenafil (Fondenafil)	ND	Noracetildenafil (Demethylhongdenafil)	ND
Chlorodenafil	ND	Nomeosildenafil (Piperidinosildenafil)	ND
Chloropretadalafil	ND	Nomeovardenafil	ND
Cinnamyildenafil	ND	Nortadalafil (Demethyltadalafil)	ND
Cyclopentynafil	ND	Oxohongdenafil	ND
Dapoxetine	ND	Phentolamine	ND
Depiperazinothiosildenafil	ND	Piperazinonafil (Piperazonifil, Dihydroacetildenafil)	ND
Descarbonsildenafil	ND	Piperidinoacetildenafil (Piperiacetildenafil)	ND
Desmethylcarbodenafil	ND	Piperidinovardenafil (Piperidenafil, Pseudovardenafil)	ND
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Dioxo-acetildenafil	ND	Propoxyphenyl hydroxyhomosildenafil (Methylhydroxyhomosildenafil)	ND
Dithio-desmethylcarbodenafil	ND	Propoxyphenyl sildenafil	ND
Gendenafil	ND	Propoxyphenyl thioaildenafil (Propoxyphenyl thiomethisosildenafil)	ND
Gisadenafil	ND	Propoxyphenyl thiohydroxyhomosildenafil	ND
Homosildenafil	ND	Sildenafil	ND
Hydroxyacetildenafil (Hydroxyhongdenafil)	ND	SR-aminotadalafil ((+)-trans-aminotadalafil)	ND
Hydroxychlorodenafil	ND	Tadalafil (Tildenafil)	ND
Hydroxyhomosildenafil	ND	Thioaildenafil (Sulfoaildenafil, Thiomethisosildenafil, Sulfodimethyl sildenafil, Dimethylthiosildenafil)	ND
2-Hydroxypropylnortadalafil	ND	Thiohomosildenafil (Sulfohomosildenafil, Homosildenafil thione)	ND
Hydroxythiohomosildenafil (hydroxyhomosildenafil thione, sulfohydroxyhomosildenafil)	ND	Thioquinapiperifil (KF31327)	ND
Hydroxythiovardenafil	ND	Thiosildenafil (Sulfosildenafil, Sildenafil thione)	ND
Hydroxyvardenafil	ND	Udenafil	ND
Imidazosagatriazinone (Desulfovardenafil)	ND	Vardenafil	ND
Isopiperazinonafil	ND	Xanthoanthrafil (Benzamidenafil)	ND



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Chanze Jennings
Chanze Jennings, Scientist I

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James Neal-Kababick
James Neal-Kababick, Laboratory Director

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