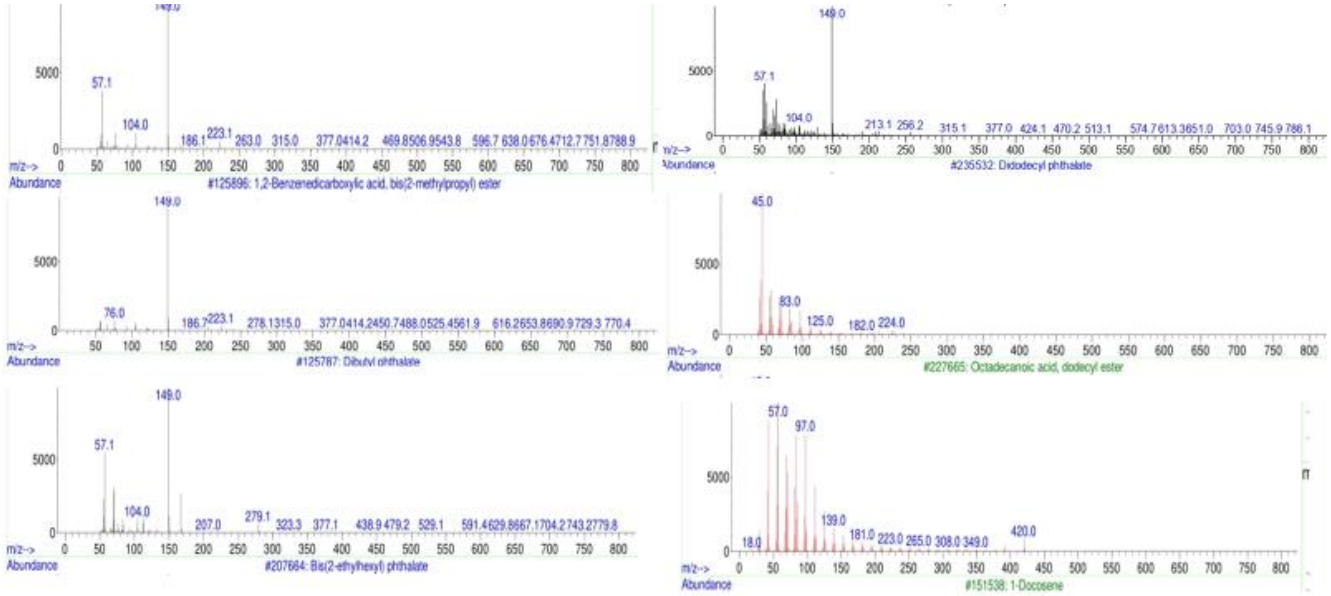
Supplementary Information

Supplementary Table 1: Major Chemical Compounds identified by GCMS for *Streptomyces* sp. VITGV38.

S. No	Chemical Compound	RT	Molecular weight	Molecular Formula	Area %	Nature of The Compound	Activity	Spectrum of action & Reference
1	Phenol, 2,4-bis(1,1-dimethylethyl),	13.803	138.21	$C_9H_{14}O$	1.68	Cyclohexane	Antimicrobial	Broad
2	N-Dimethylhexanamide	15.648	128.17	$C_{10}H_8$	0.41	Methylene	Antimicrobial	Broad [1]
3	1-Octadecene	15.791	190.12	$C_8H_5F_3O_2$	0.50	Ester	Antimicrobial	Broad [18]
4	Thiophene, 2-isobutyl-5-propyl-	16.353	164.20	$C_{10}H_{12}O_2$	2.59	Ester	Antimicrobial	Broad [4]
5	4-Aminothiophenol	17.024	278.5	$C_{17}H_{30}OSi$	1.13	Phenolic	Antimicrobial	Narrow [29]
6	2H-Pyran, tetrahydro-4-methyl-2-(2-methyl-1-propenyl)-	17.167	154.2	$C_{10}H_{18}O$	2.02	Rose oxide	Aphrodisiac activity	Broad [6]
7	Cycloeicosane	17.871	247.72	$C_{10}H_{18}ClN_3O_2$	0.78	Methyl	Anticancer	Antitumor [3]
8	Phthalic acid, hexadecyl 2-propylpentyl ester	18.098	222.24	$C_{12}H_{14}O_4$	1.92	Ethyl ester	Antimicrobial	Broad [32]
9	1 2 benzenedi - carboxylic acid bis(2-methylpropyl) ester	18.458	284.4	$C_{18}H_{36}O_2$	0.82	Stearic acid	Antioxidant	Broad [16]
10	Didodecyl phthalate	18.651	256.4	$C_{16}H_{32}O_2$	12.92	carboxylic	Antibacterial	Narrow [2]

11	1 2 benzenedi - carboxylic acid bis(2-methylpropyl) ester	18.920	284.4	$C_{18}H_{36}O_2$	0.85	Stearic acid	Antioxidant	[3]
12	1,2, Benzene dicarboxylic acid, bis (2-methylpropyl) ester	19.004	278.3435	$C_{16}H_{22}O_4$	18.23	Ester	Antibacterial	Broad [4]
13	Phthalic acid, heptyl neopentyl ester	18.349	205.1	$C_8H_7N_5O_2$	1.27	amine	Antimicrobial	Broad [22]
14	Diamyl phthalate	18.937	154.1	$C_8H_{10}O_3$	1.61	phenol	Antimicrobial	Broad [5]
15	1,2-Benzenedicarboxylic acid, butyl 2-ethylhexyl ester	19.306	310.1	$C_{16}H_{29}F_3O_2$	0.66	Ester	Antimycobacterial	Narrow [6]
16	Heptafluorobutyric acid, hexadecyl ester	19.775	438.463	$C_{20}H_{33}F_7O_2$	1.22	Ester	Antibacterial	Broad [8]
17	Phthalic acid, cycloheptyl pentyl ester	19.893	332.4	$C_{20}H_{28}O_4$	2.86	Ester	Antimicrobial	Broad [7]
18	Phthalic acid, 2,4-dimethylpent-3-yl tridecyl ester	19.977	446.6624	$C_{28}H_{46}O_4$	2.19	Ester	Antimicrobial	Broad [28]
19	1,2-Benzenedicarboxylic acid, butyl octyl ester	20.413	334.4498	$C_{20}H_{30}O_4$	3.52	Ester	Anticancer	[8]
20	Di-sec-butyl phthalate	20.807	278.34	$C_{16}H_{22}O_4$	0.59	Butane	Antibacterial	Broad[23]
21	Benzene dicarboxylic acid, butyl 2-ethylhexyl ester	21.327	334.4498	$C_{20}H_{30}O_4$	0.79	Ester	Antibacterial	Broad [14]
22	1-Hexacosene	21.529	364.7	$C_{26}H_{52}$	0.68	Ester	Antimicrobial	Broad [34]
23	2-Butanone, 4,4-dimethoxy	22.057	32.1577	$C_6H_{12}O_3$	0.44	azine	Antitumor	[13]
24	1-Heneicosyl formate	23.156	340.5836	$C_{22}H_{44}O_2$	0.72	Formate	Antimicrobial	Broad [19]
25	1-Heptadecene	23.240	238.4519	$C_{17}H_{34}$	0.54	Alkene	Antimicrobial	Broad [11]
26	2-Hexadecanol	23.643	242.4406	$C_{16}H_{34}O$	2.80	Hexane	Antifungal	Narrow [9]
27	Spiro[2.3]hexan-4-one, 5,5-diethyl-	23.987	152.23	$C_{10}H_{16}O$	0.43	Hexane	Enzymatic	[10]

28	Bis(2-ethylhexyl) phthalate	24.138	390.6	$C_{24}H_{38}O_4$	13.28	Benzene	Antimicrobial	Broad [21]
29	11-TRICOSENE	24.440	322.6	$C_{23}H_{46}$	0.97	Aliphatic hydrocarbon	Antibacterial	Broad [33]
30	Heneicosane, 11-cyclopentyl-	24.666	364.6911	$C_{26}H_{52}$	0.45	Cyclopentane	Antibacterial	Broad [31]
31	Octadecanoic acid, dodecyl ester	25.396	452.7962	$C_{30}H_{60}O_2$	5.27	Ester	Antimicrobial	Broad [15]
32	Sebacic acid, decyl 2-ethylhexyl ester	25.547	454.7	$C_{28}H_{54}O_4$	1.40	Ester	NIST database	[10]
33	Decanoic acid, 2-propenyl ester	25.799	212.3285	$C_{13}H_{24}O_2$	1.42	Ester	-	-
34	trans-13-Docosenamide	26.142	337.6	$C_{22}H_{43}NO$	1.12		Antimicrobial	Broad [11]
35	Glycerol tricaprylate	26.637	470.6823	$C_{27}H_{50}O_6$	0.83	Octanoin		[12]



Supplementary Figure 1. GC-MS Mass spectrum of respective retention time of the antimicrobial potential compound.

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