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Research Article (Supplementary Materials)

STUDY OF POTENTIAL IN VITRO ANTIDIABETIC ACTIVITIES OF METHANOLIC EXTRACTS OF *Memordica charantia, Nyctanthes arbor,* and *Tinospora cordifolia* FROM DANG NEPAL

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Table S3a. Absorbance of standard Gallic acid at different concentrations

Concentration (µg/mL)	Gallic acid Absorbance (nm)
20	0.236
40	0.613
60	0.883
80	1.193
100	1.432
120	1.698

Note: Each value is a mean of triplicate

Table S3b: Absorbance of plants extracted at different concentrations for the determination of total phenolic content.

Concentration (µg/mL)	Absorbance		
	N. arbor	***T. cordifolia***	***M. charantia***
20	0.038	0.047	0.023
40	0.056	0.074	0.062
60	0.078	0.139	0.100
80	0.098	0.152	0.122
120	0.145	0.209	0.155
160	0.183	0.236	0.198
TPC (mg GAE/g)	98.76 ± 3.36	140.49 ± 4.57	101.69 ± 4.84

Note: Each value is a mean of triplicate data

Table S3c. Absorbance of standard Quercetin at different concentrations

Concentration (µg/mL)	Quercetin Absorbance (nm)
20	0.024
40	0.058
60	0.088
80	0.126
100	0.139
120	0.182

Note: Each value is a mean of triplicate

Table S3d: Absorbance of plants extracted at different concentrations for the determination of total flavonoid content.

Concentration (µg/mL)	Absorbance		
	N. arbor	***T. cordifolia***	***M. charantia***
20	0.012	0.012	0.004
40	0.026	0.030	0.008
60	0.033	0.041	0.012
80	0.048	0.063	0.016
120	0.054	0.085	0.024
160	0.060	0.098	0.033
TFC (mg QE/g)	37.94 ± 8.15	48.13 ± 4.56	15.40 ± 1.654

Note: Each value is a mean of triplicate data

Antioxidant activity

Table S4a. Absorbance of different plants extracted at different concentrations and their IC_{50} values.

Concentration (µg/mL)	Absorbance		
	N. arbor	***T. cordifolia***	***M. charantia***
5	0.688	0.763	0.799
10	0.599	0.692	0.687
20	0.501	0.500	0.599
40	0.456	0.366	0.507
60	0.302	0.199	0.465
80	0.234	0.171	0.387
100	0.177	0.119	0.301
IC_{50}	48.16 ± 1.03	45.07 ± 0.09	69.04 ± 1.09

Note: Each value is a mean of triplicate data

Brine shrimp lethal test

Table S4b. LC_{50} values for various plants extract

Plant	z	x	y	xy	x^2	X	Y	XY	X^2	β	α	x	LC_{50}
M. charantia	10	1	8	8	1	6	18	32	14	-2	10	2.5	316.22 ± 2.54
	100	2	6	12	4								
	1000	3	4	12	9								
N. arbor	10	1	9	9	1	6	19	32	14	-3	12.33	2.44	275.42 ± 1.78
	100	2	7	14	4								
	1000	3	3	9	9								
T. cordifolia	10	1	9	9	1	6	19	32	14	-3	12.33	2.44	275.42 ± 1.63
	100	2	7	1	4								
	1000	3	3	4	9								

α-Amylase inhibition activity

Table S4c. Percentage inhibition of plant extract and acarbose against the α-amylase

Concentration (µg/mL)	Percentage Inhibition (%)			
	T. cardifolia	***M. charantia***	***N. arbor***	**Acarbose**
1000	88.02±0.26	77±0.32	68±0.54	91.23 ± 0.31
640	73.20±0.31	63±0.36	67±0.21	85.69 ± 0.23
320	63.74±0.23	43±0.25	38±0.30	76.89 ± 0.34
160	55±0.33	32±0.36	27±0.36	69.43 ± 0.65
80	38.95±0.44	25±0.20	24±0.45	63.69 ± 0.54
40	33.15±0.36	22.54±0.19	21±0.28	56.60 ± 0.36

Note: Each value is a mean of triplicate data

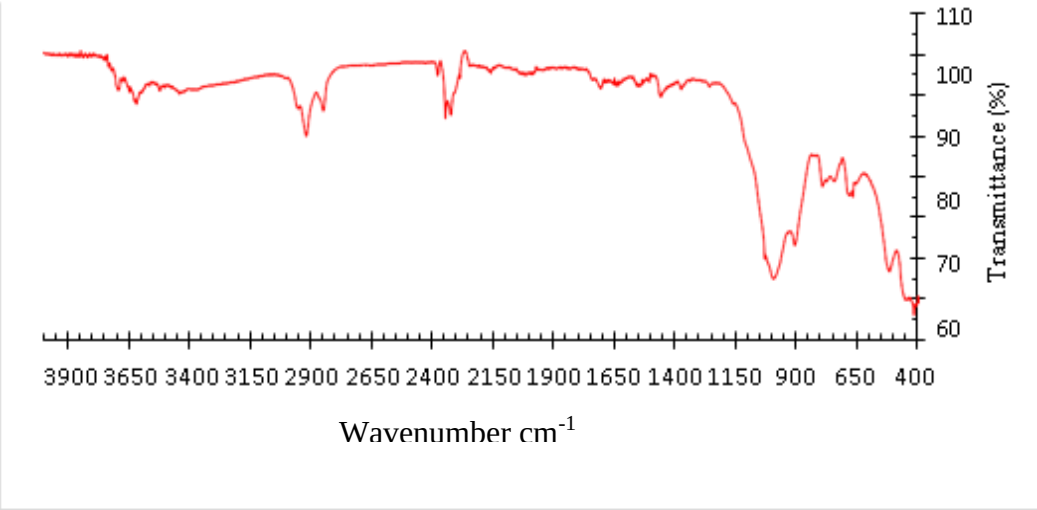

Figure S3a. FTIR spectra of fraction T26 *N. arbor*

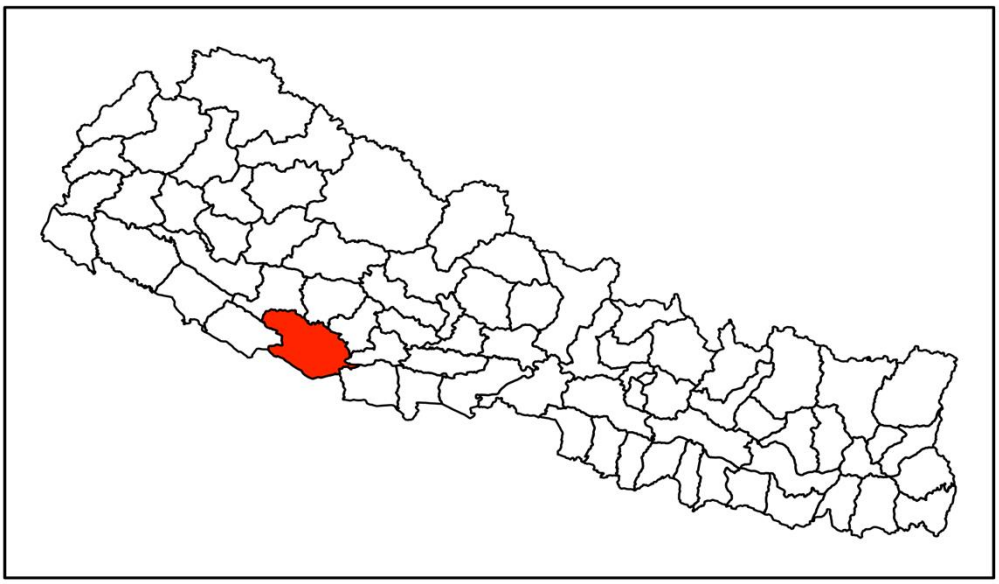

Figure S3b. Map of Nepal showing Area of Study, Dang district in red color.