

Table 2.

IN VITRO- Inhibitory activities (as percentage of inhibition) of plant extracts reported to exert pancreatic alpha- amylase inhibitory activity.

Family name	Plant species	Extraction method	Inhibition percentage (%), concentration	Ref
Acanthaceae	<i>Andrographis paniculata</i> (Burm. f.) Nees	Ethanol Extract	52.5 % (62.5 mg/ml)	(118)
Alliaceae	<i>Allium akaka</i> Gmel. (leaves)	Ethanol Extract	18.49- 67.48 % (11.8- 36.0 mg/ml)	(15)
	<i>Allium sativum</i> L. (corms)		10.27- 54.96 % (11.8- 36.0 mg/ml)	
	<i>Allium porrum</i> L. (leaves)		20.94- 72.19 % (11.8- 36.0 mg/ml)	
	<i>Allium cepa</i> L. (bulbs)		25.96- 80.94 % (11.8- 36.0 mg/ml)	
Amaranthaceae	<i>Amaranthus caudatus</i> (seeds) - <i>A.c.</i> var. Oscar blanco	1. Methanolic Extract 2. Ethyl acetate Extract 3. n- Hexane Extract	1. 50.5 % (0.025 mg/ml) 2. 87 % (0.05 mg/ml) 3. 90 % (0.1 mg/ml)	(125)
	<i>Amaranthus caudatus</i> - <i>A.c.</i> var Victor red	1. Methanolic Extract 2. Ethyl acetate Extract 3. n- Hexane Extract	1. 28 % (0.025 mg/ml) 2. 84 % (0.25 mg/ml) 3. 90 % (0.1 mg/ml)	
Anacardiaceae	<i>Anacardium occidentale</i> Linn. (leaves and stem)	1. Hexane Extract 2. Dichloromethane Extract	1. 3.2 and 6.0 % (200 mg/ml) 2. 8.2 % (200 mg/ml)	(25)
Anacardiaceae	<i>Schinus molle</i>	Aqueous Extract	10- 25(25 mg of dried simple)	(113)
Apocynaceae	<i>Gymnema sylvestre</i> (Leaves)	Aqueous phase	3 % (200 mg/ml)	(95)
1. Arecaceae 2. Ephedraceae 3. Euphorbiaceae 4. Paeoniaceae	1. <i>Areca catecu</i> L. 2. <i>Ephedra sínica</i> Stapf. 3. <i>Mallotus japonicus</i>	Hot water Extract	1. 62.5 % (300 µg/ml) 2. 41.2 % (300 µg/ml)	(153)

5. Polygonaceae	4. <i>Paeonia suffruticosa</i> Andrews		5. 81.3 % (300 µg/ml)	
	5. <i>Rheum palmatum</i> L. (rhizome)	Ethanollic Extract	1. 89.5 % (300 µg/ml) 2. 83.9 % (300 µg/ml) 3. 83.6 % (300 µg/ml) 4. 39 % (300 µg/ml) 5. 73 % (300 µg/ml)	
Asteraceae	<i>Varthemia iphionoides</i> Boiss (aerial parts)	Water E. and ethanol Extract (Iodine-starch assay)	14.8 and 21.2 % (200 µg/ml)	(130)
Asteraceae		Water E. and ethanol Extract (CNP-G ₃ assay)	67.6 and 70.5 % (200 µg/ml)	
Brassicaceae	<i>Lepidium meyenii</i> Walp	Aqueous Extract	10- 25 (25 mg of dried simple)	(113)
Cactaceae	<i>Opuntia soehrensii</i>		10- 25 % (50 mg/ml)	
Caesalpiniaceae	<i>Casia fistula</i> L. (leaves)	Methanol/ Isopropanol/ Methyl-tertiary-butyl ether/Ciclohexane Extracts	29.2% (1.9 mg/ml)/ 10.0% (2.4 mg/ml)/18.9 % (3.4 mg/ml)/25.2% (5.7 mg/ml)	(28)
Compositae	<i>Calendula officinalis</i> L. (flower)	Ethanol Extract	11.13 % (2.304 mg/ml)	(70)
Compositae	<i>Arctium lappa</i> L.(root)		35.06 % (2.304 mg/ml)	
Cucurbitaceae	<i>Cyclanthera pedata</i>	Aqueous Extract	10- 25 (25 mg of dried samples)	(113)
Dioscoreaceae	<i>Dioscorea bulbifera</i> bulb	Petroleum ether Extract	61.65 % (10mg/ml)	(16)
		Ethyl acetate Extract	73.39 % (10mg/ml)	
Ebenaceae	<i>Diospyros kaki</i> (leaves)	Hot water Extract	24.6 % (24 µg/ml) 45.2 % (48 µg/ml) 64.3 % (64.3 µg/ml)	(145)
Ericaceae	<i>Vaccinium corymbosum</i>	Crude-Amberlite Extract	91.79- 103.32 % (500 mg/ml)	(75)
Ericaceae	<i>Arbutus andrachne</i> L.	50% Methanol- aqueous Extract	90.3 % (100 mg/ml)	(150)
Euphorbiaceae	<i>Acalypha indica</i> (Leaves)	Aqueous phase	15 % (200 mg/ml)	(95)

Euphorbiaceae	<i>Phyllanthus amarus</i> Schum. et Thonn.(whole plant)	1. Hexane Extract 2. Dichloromethane Extract	1. 24.3% (200 mg/ml) 2. 8.2 % (200 mg/ml)	(25)
Euphorbiaceae	<i>Phyllanthus niruri</i> L.	Aqueous Extract	10- 25 (25 mg of dried simple)	(113)
Fabaceae	<i>Trigonella foenum graecum</i> (Seeds)	Aqueous phase	10 % (200 mg/ml)	(95)
Fabaceae	<i>Trigonella foenum-graceum</i> L. (seeds)	Cold water/ Hot water/Methanol/Isopropanol/Cyclohexane Extracts	13.4 % (1.5 mg/ml)/ 10.8 % (3.5 mg/ml)/11.8% (5.2 mg/ml)/13.2% (3.6 mg/ml)/19.3 % (1.9 mg/ml)	(28)
Fabaceae	<i>Trigonella foenum-graecum</i> (seed)	Petroleum ether Extract	8.7- 92.5 % (0.4 mg/ml)	(149)
Fabaceae	<i>Acacia mearnsii</i> (bark)	Aqueous Extract	73.7 % (250 µg/ml)	(111)
		1. Fraction 2 1.1. Fraction 212 1.2. Fraction 221 1.2.1. Fraction 2217 1.3. Fraction 222	1. 86 % (250 µg/ml) 1.1. 92.8 % (250 µg/ml) 1.2. 89.2 % (250 µg/ml) 1.2.1. 92.4 % (250 µg/ml) 1.3. 65.8% (250 µg/ml)	
Hypericaceae	<i>Hypericum triquetifolium</i> Turra	50% Methanol- aqueous Extract	91.2 % (100 mg/ml)	(150)
Juglandaceae	<i>Juglans regia</i> L.(leaf)	Ethanol Extract	28.73 % (2.304 mg/ml)	(70)
Lamiaceae	<i>Ocimum basilicum</i>	Aqueous Extract	1. 55 % (20 mg/ml) 2. 40 % (18.2 mg/ml) 3. 29.7 % (16.3 mg/ml)	(14)

			4. 20 % (14.5 mg/ml)	
Lamiaceae	<i>Ocimum tenuiflorum</i> (L.)	Chloroform Extract	24.57 % (25 mg/ml)	(30)
Lamiaceae	<i>Origanum vulgare</i>	50% Ethanol Extract	9- 57 % (200 mg/ml)	(19)
Lamiaceae	<i>Salvia officinalis</i>	Aqueous Extract	30 % (10mg/ml)	(17)
	<i>Rosmarinus officinalis</i>			
	<i>Ocimum basilicum</i>		20 % (10 mg/ml)	
Laminaceae	<i>Ocimum tenuiflorum</i> L. (leaves)	Isopropanol Extract	53.4 % (0.0094 mg/ml)	(28)
Leguminosae	<i>Trigonella foenum-graecum</i> L. (leaf and seed)	Ethanol Extract	57.27 and 54.34 % (2.304 mg/ml)	(70)
Liliaceae	<i>Aloe vera</i> (L.) Burm. f. (leaf gel)	Cold water and Ciclohexane Extracts	23.3 % (2.5 mg/ml) and 15.8 % (2.4 mg/ml)	(28)
Linaceae	<i>Linum usitatissimum</i> L. (seeds)	Isopropanol/Acetone/ Methyl-tertiary-butyl ether Extracts	55.7 % (0.65 mg/ml)/ 33.5% (2.6 mg/ml)/39.1 % (2.7 mg/ml)	
Lythraceae	<i>Lagerstroemia speciosa</i> Pers. (leaves and stem)	Hexane Extract	4.3 and 8.3% (200 mg/ml)	(25)
Malvaceae	<i>Theobroma cacao</i>	1. Low processed <i>T. cacao</i> 2. Mid processed <i>T. cacao</i> 3. High processed <i>T. cacao</i>	1. 25 % (200 µg/ml) 2. 20% (200 µg/ml) 3. 10% (200 µg/ml)	(55)
Malvaceae	<i>Tilia platyphyllos</i>	Aqueous Extract	71 and 85 % (50 mg/ml)	(113)
Malvaceae	<i>Hibiscus gossypifolius</i> Mill. (flower)	Ethanol Extract	25.43 % (2.304 mg/ml)	(70)
Menispermaceae	<i>Tinospora cordifolia</i> (Leaves)	Aqueous phase	13 % (200 mg/ml)	(95)
Monimiaceae	<i>Peumus boldus</i>	Aqueous Extract	71 and 85 (25 mg of dried simple)	(113)
Moraceae	<i>Artocarpus heterophyllus</i> (leaf)	Aqueous Extract	27.20 % (1000 µg/ml)	(189)
Moraceae	<i>Morus alba</i> L. (leaves)	Methanol and Isopropanol Extracts	15.1 % (3.9 mg/ml) and 60.5 % (1.8 mg/ml)	(28)

Moraceae	<i>Ficus racemosa</i> Linn. (stem bark)	1. Heat treated <i>F. racemosa</i> bark 2. Untreated <i>F. racemosa</i> bark	1. 0.58 % (10 mg of the sample/ml of emulsion) 2. 0.94 % (10 mg of the sample/ml of emulsion)	(13)
Moringaceae	<i>Moringa oleifera</i> (Leaves)	Aqueous phase	16 % (200 mg/ml)	(95)
Myrtaceae	<i>Syzygium cumini</i> (Seeds)		98 % (200 mg/ml)	
Myrtaceae	<i>Psidium guajava</i> Var. <i>Pomiferum</i> (Leaves)		98 % (200 mg/ml)	
Myrtaceae	<i>Syzygium cumini</i> (L.) Skeels	Chloroform Extract	22.31 % (25 mg/ml)	(30)
Nyctaginaceae	<i>Bougainvillea spectabilis</i>		29.43 % (25 mg/ml)	
Oleaceae	<i>Olea europea</i> L. (leaf)	Ethanol Extract	15.84 % (2.304 mg/ml)	(70)
Phyllanthaceae	<i>Phyllanthus amarus</i>	Ethanol and hexane Extract	80.48 and 75.32 % (100 µg/ml)	(185)
Pineaceae	<i>Pinus maritima</i> (bark)	70% Ethanol Extract	68.2- 97.2 % (0.1-5µg/ml)	(170)
Rhamnaceae	<i>Zizyphus mauritina</i> (Seeds)	Aqueous phase	12 % (200 mg/ml)	(95)
Rosaceae	<i>Rubus idaeus</i> (Nova, Heritage and K81-6 varieties)	Water and Ethanol Extract	40-100 % (25 µg/ml)	(74)
Rosaceae	<i>Sarcopotarium spinosum</i> L.	50% Methanol- aqueous Extract	85.2 % (100 mg/ml)	(150)
Rubiaceae	<i>Uncaria tomentosa</i>	Aqueous Extract	75 % (50 mg/ml)	(113)
Rutaceae	<i>Limonia acidissima</i> (Seeds)	Aqueous phase	20 % (200 mg/ml)	(95)
Rutaceae	<i>Aegle marmelos</i> (Leaves)		6 % (200 mg/ml)	
Rutaceae	<i>Murraya koenigii</i> (L.)	Chloroform Extract	56.64 % (25 mg/ml)	(30)

	Sprengel			
Salicaceae	<i>Salix matsudana</i> (leaves)	Pethroleum ether Extract	- 98.2 % (250 µg/ml reaction mixture) - 61.3 % (2500 µg/ml reaction mixture) - 20.0 % (5000 µg/ml reaction mixture)	(190)
Santolaceae	<i>Osyris alba</i> L.	50% Methanol- aqueous Extract	96 % (100 mg/ml)	(150)
Saxifragaceae	<i>Bergenia ciliate</i> (rhizome)	50% Methanol crude Extract	93.5 % (150 mg/ml)	(136)
Saxifragaceae		Water soluble Extract	65.3 % (150 mg/ml)	
Saxifragaceae		Ethyl acetate soluble Extract	84.3 % (150 mg/ml)	
Schisandraceae	<i>Schizandra chinensis</i> Bail. 1. <i>S. chinensis</i> seed 2. <i>S. chinensis</i> pulp/skin	Water Extract	1. 2 % (1 mg/ml) 2. 74 % (1 mg/ml)	(132)
Solanaceae	<i>Capsicum annuum</i>	Aqueous Extract	20% (10 mg/ml)	(17)
Theaceae	<i>Camellia sinensis</i> (L.) Ktze. (leaf)	Ethanol Extract	52.26 % (2.304 mg/ml)	(70)
Theaceae	<i>Camellia sinensis</i> (flower) (polysaccharide fraction)	Hot Water Extract	29.5% (2.0 mg/ml)	(159)
Thymelaeaceae	<i>Gnidia glauca</i> leaf	Ethyl acetate Extract	62.91 % (10mg/ml)	(16)
Thymelaeaceae		Methanol Extract	62.75% (10 mg/ml)	
Thymelaeaceae	<i>Gnidia glauca</i> flower	Ethanol Extract	77.93 % (10 mg/ml)	
Umbelliferae	<i>Coriandrum sativum</i> L. (fruit and leaf)	Ethanol Extract	33.59 and 20.93 % (2.304 mg/ml)	(70)
Urticaceae	<i>Urtica dioica</i> L. (leaf)		51.59 % (2.304 mg/ml)	
Urticaceae	<i>Urtica pilulifera</i> L. (seed)		40.67 % (2.304 mg/ml)	
Zigophyllaceae	<i>Balanites aegyptiaca</i> Del. (Fruits)	Water Extract	2.8- 84.8 % (5 mg/ml)	(149)

