

Dr. Duke's Phytochemical and Ethnobotanical Databases
Biological Activities found in Citrus limon

Activity	Chemical Count
(+)-Inotropic	1
(-)-Chronotropic	1
(-)-Inotropic	1
11B-HSD-Inhibitor	2
5-HT-Inhibitor	1
5-Lipoxygenase-Inhibitor	2
Abortifacient	1
Acaricide	8
ACE-Inhibitor	7
AChE-Inhibitor	1
Acidulant	2
Adaptogenic	1
Adenosine-Antagonist	1
Adrenergic	1
Aldehyde-Oxidase-Inhibitor	2
Aldose-Reductase-Inhibitor	18
Allelochemic	7
Allelopathic	6
Allergenic	19
Allergenic?	1
Alpha-Amylase-Inhibitor	1
Analeptic	1
Analgesic	15
Analgesic-Synergist	1
Ancylostomicide	1
Androgenic	1
Androgenic?	1

Activity	Chemical Count
Anesthetic	5
Angiogenic	1
Angiotensin-Receptor-Blocker	3
Ankylostomacide	1
Anorexic	1
Anthelmintic	3
Anti-LDL	1
Antiacetylcholinesterase	11
Antiacne	6
Antiadrodynic	1
Antiadenomic	2
Antiadenoviral	1
Antiadrenergic	1
Antiaflatoxin	5
AntiAGE	1
Antiaggregant	13
Antiaging	4
Antiakathisic	1
Antialcoholic	1
Antialkali?	1
Antiallergenic	2
Antiallergic	14
Antialopepic	1
Antialzheimeran	6
Antialzheimeran?	2
Antiamblyopic	1
Antiamnesic	1

Activity	Chemical Count
Anti-amyloid-beta	1
Anti-anaphylactic	3
Anti-androgenic	1
Anti-anemic	1
Anti-anginal	1
Anti-angiogenic	3
Anti-anorectic	1
Anti-anxiety	1
Anti-apertif	1
Anti-aphtic	1
Anti-apneic	1
Anti-apoplectic	1
Anti-apoptotic	1
Anti-appetant	1
Anti-arabiflavonotic	1
Anti-arrhythmic	6
Anti-arthritis	5
Anti-asthmatic	8
Anti-atherogenic	4
Anti-atheromic	1
Anti-atherosclerotic	7
Anti-bacillary	1
Anti-backache	1
Anti-bacterial	38
Anti-beriberi	1
Anti-bradykinic	1
Anti-bronchitic	2

Activity	Chemical Count
Antibronchoconstrictor	1
Anticalculic	1
Anticancer	10
Anticancer (Breast)	4
Anticancer (Cervix)	2
Anticancer (Colon)	1
Anticancer (Forestomach)	1
Anticancer (Gastric)	1
Anticancer (Liver)	1
Anticancer (Lung)	1
Anticancer (Pancreas)	1
Anticancer (Prostate)	1
Anticancer (Skin)	1
Anticanker	2
Anticapillary-Fragility	3
Anticarcinogenic	5
Anticarcinomic	3
Anticarcinomic (Breast)	1
Anticardiospasmic	1
Anticariogenic	8
Anticarpal-Tunnel	1
Anticataleptic	2
Anticataract	7
Anticatarrh	1
Anticephalagic	1
Anticervicaldysplasic	3
AntiCFS	1

Activity	Chemical Count
Anticheilitic	2
Antichilblain	1
Anticholinergic	1
Anticholinesterase	2
Anticlastogen	3
Anticlimacteric	2
Anticoagulant	2
Anticold	1
Anticolic	1
Anticolitic	2
Anticomplementary	3
Anticonvulsant	7
Anticoronary	1
AntiCrohn's	2
AntiCTS	1
AntiCVI	2
Anticystitic	1
Anticytotoxic	1
Antidecubitic	3
Antideliriant	1
Antidementia	5
Antidepressant	5
Antidermatic	1
Antidermatitic	6
Antidiabetic	7
Antidiarrheic	1
Antidiuretic	1

Activity	Chemical Count
AntiDNA	1
Antidote (Aluminum)	2
Antidote (Cadmium)	1
Antidote (Lead)	2
Antidote (Paraquat)	1
Antidysmenorrhic	1
Antidyspeptic	1
Antidysphagic	1
AntiEBV	1
Antieczemic	1
Antiedemic	10
Antielastase	2
Antiemetic	1
Antiencephalitic	2
Antiencephalopathic	1
Antiendometriotic	1
Antiendotoxic	1
Antienteritic	1
Antiepileptic	2
Antierythemic	1
Antiescherichic	3
Antiesophagitic	1
Antiestrogenic	6
Antifatigue	4
Antifeedant	17
Antifertility	2
Antifibrosarcomic	1

Activity	Chemical Count
Antifibrotic	2
Antiflu	8
Antigallstone	2
Antigastric	1
Antigastritic	3
Antigingivitic	1
Antiglaucomic	2
Antigliomic	1
Antiglossitic	1
Antiglutamaergic	1
Antigonadotrophic	1
Antigonadotropic	3
AntiGTF	1
Antihalitotic	2
Antihangover	3
Antiheartburn	1
Antihelicobacter	3
Antihematuric	1
Antihemolytic	1
Antihemorrhagic	1
Antihemorrhoidal	2
Antihepatitic	1
Antihepatoadenomic	1
Antihepatotoxic	11
Antitherpetic	11
Antihistaminic	17
AntiHIV	4

Activity	Chemical Count
Antihydrophobic	1
Antihyperactivity	1
Antihyperammonemic	1
Antihypercholesterolemic	1
Antihyperkeratotic	1
Antihyperkinetic	1
Antihyperlipoproteinaemic	1
Antihypertensive	7
Antihyperthyroid	1
Antihypotensive	1
Antiichthyotic	1
Antiimplantation	1
Antiinfertility	1
Antiinflammatory	34
Antiinsomniac	2
Antiinsomnic	1
Antiischemic	1
Antijet-lag	1
Antikeratitic	1
Antilaryngitic	1
AntiLegionella	1
Antileishmanic	4
Antileptic	2
Antileukemic	10
Antileukodermic	2
Antileukoplakic	1
Antileukotriene	4

Activity	Chemical Count
Antileukotrienogenic	1
Antilipogenic	2
Antilipolytic	1
Antilipoperoxidant	2
Antilithic	4
Antilithic?	1
Antilupus	1
AntiLyme	4
Antilymphocytic	1
Antilymphomic	4
Antimaculitic	3
Antimalarial	5
Antimange	1
Antimastitic	1
Antimeasles	1
Antimelanogenic	1
Antimelanomic	8
AntiMeniere's	1
Antimenopausal	2
Antimenorrhagic	1
Antimetastatic	5
Antimetastatic (Stomach)	1
Antimetrorrhagic	1
Antimigraine	3
Antimite	1
Antimitotic	6
Antimutagenic	21

Activity	Chemical Count
Antimyocarditic	2
Antinarcotic	1
Antineoplastic	1
Antinephritic	1
Antineuralgic	2
Antineuramidase	1
Antineurasthenic	1
Antineuritic	2
Antineuropathic	2
Antinitrosaminic	7
Antinitrosic	1
Antinociceptive	6
Antinyctalopic	1
Antiobesity	6
Antionychyotic	1
Antiophidic	3
Antiorchitic	1
Antiosteoarthritic	1
Antiosteoporotic	3
Antiotitic	1
Antioxidant	32
Antioxidant (LDL)	1
Antioxidant Synergist	1
Antiozenic	1
Antipancreatic	1
Antipapillomic	1
Antiparkinsonian	2

Activity	Chemical Count
Antiparotitic	1
Antipellagic	2
Antiperiodontal	1
Antiperiodontic	1
Antiperiodontitic	2
Antiperistaltic	2
Antipermeability	1
Antiperoxidant	5
Antiperoxidative	1
Antiperoxyinitrite	1
Antipharyngitic	2
Antiphotophobic	2
Antipityriasic	1
Antiplaque	3
Antiplasmodial	1
Antiplaquet	3
AntiPMS	3
Antipneumonic	2
Antipodriac	2
Antipolio	2
Antipoliomyelitic	2
Antiporphyrinic	1
Antiprogestational	1
Antiproliferant	14
Antiproliferative	3
Antiprostaglandin	6
Antiprostanoid	1

Activity	Chemical Count
Antiprostatadenomic	1
Antiprostatitic	3
Antiprostatotic	1
Antiprotozoal	1
Antipsoriac	3
Antipurpuric	1
Antipyretic	4
Antiradicular	12
AntiRaynaud's	2
Antiretardation	1
Antiretinitic Optometry	1
Antiretinopathic	1
Antiretinotic	1
Antirheumatalgic	1
Antirheumatic	5
Antirhinitic	3
Antirhinoviral	2
AntiRNA	1
Antisalmonella	4
Antiscorbatic	1
Antiscotomic	1
Antiseborrheic	1
Antiseptic	24
Antiserotonergic	1
Antiserotonin	1
Antishingles	1
Antishock	2

Activity	Chemical Count
Antisindhis	1
Antisinusitic	1
Antispasmodic	31
Antistaphylococcic	10
Antistomatitic	2
Antistreptococcic	5
Antistress	4
Antistroke	1
Antisunburn	2
Antisyndrome-X	1
Antitachycardic	1
Antithiamin	2
Antithrombic	2
Antithrombogenic	1
Antithromboxane	1
Antithyroid	2
Antititic	1
Antitrichinosic	1
Antitriglyceride	1
Antitrypanosomic	2
Antitubercular	3
Antitumor	19
Antitumor (Bladder)	1
Antitumor (brain)	1
Antitumor (Breast)	7
Antitumor (Cervix)	2
Antitumor (CNS)	1

Activity	Chemical Count
Antitumor (Colon)	9
Antitumor (Forestomach)	1
Antitumor (Gastric)	2
Antitumor (Kidney)	1
Antitumor (Liver)	2
Antitumor (Lung)	6
Antitumor (Ovary)	2
Antitumor (Pancreas)	3
Antitumor (Prostate)	3
Antitumor (Skin)	6
Antitumor (Stomach)	3
Antitumor (Thyroid)	1
Antitumor-Promoter	11
Antitussive	5
Antiulcer	17
Antiulcerogenic	1
Antiuricosuric	1
Antivaccinia	3
Antivaginitic	1
Antivaricose	1
Antivertigo	1
Antiviral	21
Antivertilgic	1
Antixerophthalmic	1
Antiyeast	1
Anxiolytic	7
Aphidifuge	2

Activity	Chemical Count
Apoptotic	13
Aromatase-Inhibitor	2
Arrhythmigenic	1
Artemicide	3
Arteriodilator	2
Ascaricide	1
Asthma-preventive	1
Ataxigenic	1
ATPase-Inhibitor	1
Bacteriostatic	1
Bacteristat	1
Barbituate-Synergist	2
Beta-Adrenergic Receptor Blocker	1
Beta-Blocker	2
Beta-Glucuronidase-Inhibitor	2
Bradycardiac	1
Bronchoprotectant	1
Bronchorelaxant	3
Bufocide	1
Calcium-Antagonist	17
Calcium-Channel-Blocker	1
Calmodulin-Antagonist	1
cAMP-Phosphodiesterase-Inhibitor	4
Cancer-Preventive	41
Candidicide	14
Candidistat	3
Capillariprotective	3

Activity	Chemical Count
Carcinogenic	5
Cardiac	2
Cardioprotective	4
Cardiotonic	2
Cardiotoxic	1
Cardiovascular	2
Carminative	3
Caspase-3-Inducer	1
Caspase-8-Inducer	1
Catabolic	4
cGMP-Phosphodiesterase-Inhibitor	1
Chemopreventive	12
Cholagogue	4
Choleretic	11
Cholesterolytic	1
Cholinergic	1
Cicatrizant	1
Circulotonic	1
Clastogenic	2
CNS-Active	1
CNS-Depressant	5
CNS-Stimulant	6
Co-carcinogenic	1
Cold-preventive	1
Coleoptophile	1
Collagen-Sparing	1
Collagenic	1

Activity	Chemical Count
Colorant	5
COMT-Inhibitor	2
Convulsant	1
Copper-Chelator	1
Coronary-Dilator	1
Counterirritant	2
COX-1-Inhibitor	1
COX-2-Inhibitor	3
Culicide	2
Cyclin-B1-Inhibitor	1
Cyclin-D1-Inhibitor	1
Cyclooxygenase-Inhibitor	4
Cytochrome-P450-1A2-Inhibitor	1
Cytochrome-P450-Inducer	1
Cytochrome-P450-Inhibitor	4
Cytoprotective	3
Cytotoxic	7
Cytotoxic (Breast)	1
Cytotoxic (Colon)	1
Decarboxylase-Inhibitor	1
Decongestant	1
Degranulant	1
Deiodinase-Inhibitor	2
Demulcent	2
Dentifrice	2
Deodorant	2
Dermal	1

Activity	Chemical Count
Dermatitigenic	2
Detoxicant	2
Diaphoretic?	2
Differentiator	3
Disinfectant	1
Diuretic	10
DME-Inhibitor	5
DNA-Active	1
DNA-Protective	1
Edemagenic	1
Embryotoxic	3
Emetic	2
Emmenagogue	1
Energizer	1
Enterocontractant	1
Enterorelaxant	1
Enterotoxic	1
Ergotamine-Enhancer	1
ERK-1-Inhibitor	1
ERK-2-Inhibitor	1
Estrogenic	9
Estrogenic?	1
Expectorant	11
Febrifuge	1
Fibrinolytic	1
Fistula-Preventive	1
FLavor	44

Activity	Chemical Count
Fungicide	33
Fungiphilic	1
Fungistat	4
GABA-nergic	1
Gastroirritant	1
Gastroprotective	3
Glaucomagenic	1
Glucogonogenic	1
Glucosyl-Transferase-Inhibitor	1
Glutathionigenic	2
Gonadotrophic	1
Gram(+)-icide	2
Gram(-)-icide	2
GST-Inducer	1
Hemostat	4
Hepatocarcinogenic	1
Hepatomagenic	2
Hepatoprotective	13
Hepatotonic	1
Hepatotoxic	2
Hepatotropic	2
Herbicide	13
Histamine-Inhibitor	1
Histaminic	1
HIV-RT-Inhibitor	1
Hyaluronidase-Inhibitor	1
Hydrocholerectic	1

Activity	Chemical Count
Hyperglycemic	1
Hypertensive	4
Hypnotic	1
Hypocholesterolemic	15
Hypocholesterolemic?	1
Hypoglycemic	11
Hypolipidemic	5
Hypotensive	10
Hypothermic	2
Hypouricemic	1
ICAM-1-Inhibitor	1
IKK-Inhibitor	1
Immunomodulator	5
Immunostimulant	6
Immunosuppressant	2
Inflammatory	1
iNOS-Inhibitor	2
Inotropic	1
Insecticide	14
Insectifuge	24
Insectiphile	5
Insulinic	1
Insulinogenic	1
Interferon-Synergist	1
Interferonogenic	1
Interleukin-6-Inhibitor	2
Iodothyronine-Deiodinase-Inhibitor	2

Activity	Chemical Count
Irritant	18
Juvabional	4
Keratitigenic	1
Lactagogue	1
Larvicide	3
Larvostat	2
Laxative	5
Laxative?	1
Leukotriene-Inhibitor	1
Lipolytic	6
Lipoxygenase-Inhibitor	8
Lithogenic	1
Litholytic	2
Lyase-Inhibitor	1
Lypolytic	1
MAO-A-Inhibitor	1
MAO-Inhibitor	2
MAPK-Inhibitor	1
Mast-Cell-Stabilizer	1
MDR-Inhibitor	2
Metal-Chelator	2
Metal-Chelator (Copper)	1
Metalloproteinase-Inhibitor	2
MMP-9-Inhibitor	2
Molluscicide	4
Mosquitocide	1
Mosquitofuge	2

Activity	Chemical Count
Motor-Depressant	5
Mucogenic	1
Mucolytic	2
Musculotropic	1
Mutagenic	6
Mutagenic?	1
Mycobactericide	2
Myoprotective	1
Myorelaxant	12
NADH-Oxidase-Inhibitor	1
Nematicide	14
NEP-Inhibitor	2
Nephrotoxic	2
Neuroprotective	4
Neurotoxic	4
Neurotropic	1
NF-kB-Inhibitor	3
NO-Genic	1
NO-Inhibitor	4
NO-Synthase-Inhibitor	1
Odontolytic	1
Ornithine-Decarboxylase-Inhibitor	4
Osteoblastogenic	1
Osteogenic	1
Osteolytic	1
Oviposition-Stimulant	4
Ovulant	1

Activity	Chemical Count
Oxytotic	1
Oxytotic?	1
Ozone-Scavenger	1
P450-2B1-Inhibitor	6
P450-Inducer	3
P450-Inhibitor	3
PAF-Inhibitor	2
Pediculicide	1
Perfume	1
Perfumery	35
Peristaltic	2
Pesticide	67
PGE2-Inhibitor	1
Phagocytotic	2
Pheromone	1
Phosphodiesterase-Inhibitor	1
Phospholipase-Inhibitor	1
Photoactive	1
Photosensitizer	1
Phototoxic	1
Phytoalexin	1
Phytohormonal	1
Pigment	1
Piscicide	3
Plasmodicide	1
PPAR-Gamma-Antagonist	1
Preservative	1

Activity	Chemical Count
ProHDL	1
Proliferant	2
Prooxidant	5
Prostaglandigenic	3
Prostaglandin-Synthesis-Inhibitor	3
Prostaglandin-Synthetase-Inhibitor	1
Prostatitigenic	1
Protein-Kinase-C-Inhibitor	2
Protisticide	2
PTK-Inhibitor	2
Pyrogenic	2
Quinone-Reductase-Inducer	4
Radioprotective	3
Refrigerant	1
Renoirritant	1
Respirastimulant	2
Retinoprotectant Optometry	1
Rubefacient	1
Secretagogue	1
Secretomotor	1
Sedative	23
Serotonin-Inhibitor	1
Serotoninerpic	1
Spasmogenic	6
Spasmolytic	1
Spermicide	3
Sprout-Inhibitor	1

Activity	Chemical Count
Stimulant	1
Stomachic	1
Succinoxidase-Inhibitor	1
Sunscreen	4
Surfactant	1
Sympathomimetic	1
Systolic-Depressant	1
Tachycardic	1
Teratogenic	4
Teratologic	1
Termiticide	2
Termitifuge	2
Testosterone-Hydroxylase-Inducer	1
Thymoprotective	1
TNF-alpha-Inhibitor	4
Tonic	1
Topoisomerase-I-Inhibitor	4
Topoisomerase-II-Inhibitor	3
Tracheorelaxant	1
Tranquilizer	3
Transdermal	5
Trichomonicide	9
Trypanocide	1
Tumor-Promoter	1
Tumorigenic	2
Tyrosinase-Inhibitor	3
Tyrosine-Kinase-Inhibitor	1

Activity	Chemical Count
Ubiquiot	5
Ulcerogenic	2
Uricosuric	2
Urinary-Acidulant	1
Urinary-Antiseptic	1
Uterosedative	2
Uterotrophic	1
Varroacide	1
Vasoconstrictor	2
Vasodilator	12
Vasopressor	3
VEGF-Inhibitor	2
Venoprotective	1
Venotonic	1
Vermicide	2
Verrucolytic	1
Vibriocide	1
Vulnerary	4
Xanthine-Oxidase-Inhibitor	5