

Dr. Duke's Phytochemical and Ethnobotanical Database**Biological Activities Found in Citrus sinensis**

Activity	Chemical Count
(+)-Inotropic	1
11B-HSD-Inhibitor	2
5-Alpha-Reductase-Inhibitor	5
5-HT-Inhibitor	1
5-Lipoxygenase-Inhibitor	2
Abortifacient	1
Acaricide	8
Acarifuge	1
ACE-Inhibitor	5
Acetylcholinergic	1
AChE-Inhibitor	1
Acidulant	2
Addictive	1
Additive	1
Adenosine-Antagonist	1
Adjuvant	1
Adrenergic	1
Aggregant	1

Activity	Chemical Count
Aldehyde-Oxidase-Inhibitor	2
Aldose-Reductase-Inhibitor	17
Allelochemic	6
Allelopathic	5
Allergenic	20
Allergenic?	1
Alpha-Amylase-Inhibitor	1
Alpha-Reductase-Inhibitor	1
Amphiglycemic?	1
Analeptic	2
Analgesic	18
Analgesic-Synergist	1
Ancylostomicide	1
Androgenic	2
Androgenic?	1
Anemiagenic	1
Anesthetic	3
Angiogenic	1
Angiotensin-Receptor-Blocker	3
Anhydrotic	1

Activity	Chemical Count
Ankylostomacide	1
Anorexic	3
Anthelmintic	2
Anti-LDL	1
Antiacetylcholinesterase	10
Antiacid	1
Antiacne	13
Antiacrodermatitic	1
Antiacrodynic	1
AntiADD	1
Antiadenomic	2
Antiadenoviral	1
Antiadhesive	1
Antiadrenalinic	1
Antiaflatoxin	3
AntiAGE	2
Antiaggregant	13
Antiaging	5
Antiakathisic	1
Antialcoholic	6

Activity	Chemical Count
Antialdosteronic	1
Antialkali?	1
Antialkalotic	1
Antiallergenic	2
Antiallergic	12
Antialopecic	4
Antialzheimeran	8
Antialzheimeran?	2
Antiamblyopic	1
Antiamnesic	1
Antiamyloid-Beta	1
Antianaphylactic	3
Antiandrogenic	4
Antianemic	4
Antianginal	3
Antiangiogenic	3
Antianorectic	2
Antianorexic	1
Antianxiety	3
Antiapertif	1

Activity	Chemical Count
Antiaphthic	1
Antiapneic	1
Antiapoplectic	1
Antiapoptotic	1
Antiarabiflavinotic	1
Antiarrhythmic	4
Antiarteriosclerotic	3
Antiarthritic	14
Antiasthmatic	11
Antiatherogenic	3
Antiatheromic	1
Antiatherosclerotic	13
Antibacillary	1
Antibackache	1
Antibacterial	41
Antiberiberi	1
AntiBPH	1
Antibradykinic	1
Antibronchitic	1
Anticalculic	1

Activity	Chemical Count
Anticancer	11
Anticancer (Bladder)	1
Anticancer (Breast)	5
Anticancer (Cervix)	3
Anticancer (Colon)	1
Anticancer (Esophagus)?	1
Anticancer (Forestomach)	1
Anticancer (Gastric)	1
Anticancer (Liver)	2
Anticancer (Lung)	2
Anticancer (Pancreas)	1
Anticancer (Prostate)	1
Anticancer (Skin)	2
Anticanker	3
Anticapillary-Fragility	3
Anticarcinogenic	4
Anticarcinomic	1
Anticarcinomic (Breast)	1
Anticardiospasmic	1
Anticariogenic	9

Activity	Chemical Count
Anticarpal-Tunnel	1
Anticataleptic	2
Anticataract	10
Anticephalagic	4
Anticerebrotic	1
Anticervicaldysplasic	4
AntiCFS	3
Anticheilitic	3
Antichilblain	1
Anticholinesterase	1
Antichoreic	2
Anticirrhotic	2
Anticirrhotic?	1
Anticlastogen	3
Anticlaudificant?	1
Anticlimacteric	4
Anticoagulant	1
Anticoeliac	1
Anticold	2
Anticolic	1

Activity	Chemical Count
Anticolitic	3
Anticomplementary	1
Anticonvulsant	9
Anticorneotic	1
Anticoronary	5
AntiCrohn's	3
AntiCTS	1
AntiCVI	2
Anticystinuric	1
Anticystitic	2
Anticytotoxic	1
Antidandruff	3
Antidecubitic	3
Antideliriant	1
Antidementia	8
Antidepressant	12
Antidepressant?	1
Antidermatitic	7
Antidiabetic	15
Antidiabetic?	1

Activity	Chemical Count
Antidiarrheic	2
Antidiscotic	1
AntiDNA	1
Antidote	1
Antidote (Acetaminophen)	1
Antidote (Aluminum)	2
Antidote (Cadmium)	2
Antidote (Hypoglycin-A)	1
Antidote (Lead)	3
Antidote (Mercury)	1
Antidote (Paracetamol)	1
Antidote (Paraquat)	1
Antidysgeuzic	1
Antidyskinetic	3
Antidysmenorrhic	2
Antidyspeptic	1
Antidysphagic	1
AntiEBV	1
Antieczemic	4
Antiedemic	9

Activity	Chemical Count
Antielastase	2
Antiemetic	1
Antiencephalitic	2
Antiencephalopathic	7
Antiencephalopathic?	1
Antiendometriotic	2
Antienteritic	1
Antienterotic	1
Antiepileptic	5
Antierythemic	1
Antiescherichic	3
Antiesophagitic	1
Antiestrogenic	4
Antifatigue	7
Antifeedant	16
Antifertility	2
Antifibrinolytic	2
Antifibromyalgic	2
Antifibrosarcomic	1
Antifibrotic	4

Activity	Chemical Count
Antiflu	8
Antifuruncular	1
Antigallstone	2
Antigastric	2
Antigastritic	5
Antigastrotic	1
Antigingivitic	3
Antiglaucomic	3
Antigliomic	1
Antiglossitic	2
Antiglutamaergic	1
Antiglycosuric	1
Antigonadotrophic	2
Antigonadotropic	2
Antigout	1
Antigranular	1
Antigrey	1
AntiGTF	1
Antihalitotic	1
Antihangover	5

Activity	Chemical Count
Antiheartburn	1
Antihelicobacter	2
Antihematuric	1
Antihemolytic	2
Antihemorrhagic	2
Antihemorrhoidal	2
Antihepatitic	2
Antihepatoadenomic	1
Antihepatotic	1
Antihepatotoxic	11
Antiherpetic	11
Antiherpetic?	1
Antihiccup	1
Antihistaminic	13
AntiHIV	8
Antihomocysteine	1
Antihomocystinuric	2
Antihydrophobic	1
Antihyperactivity	1
Antihyperammonemic	1

Activity	Chemical Count
Antihypercholesterolemic	2
Antihyperkeratotic	1
Antihyperkinetic	2
Antihyperlipoproteinaemic	1
Antihypertensive	11
Antihyperthyroid	2
Antihypoglycemic	1
Antihypotensive	1
Antiichthyotic	1
Antiilus?	1
Antiimplantation	1
Antiimpotence	2
Antiinfarctal	1
Antiinfective	1
Antiinfertility	4
Antiinflammatory	30
Antiinsomniac	4
Antiinsomniac?	1
Antiinsomnic	2
Antiischemic	2

Activity	Chemical Count
Antijet-lag	1
Antikeratitic	1
Antikeshan	1
Antiketotic	2
AntiLegionella	1
Antileishmanic	3
Antileptic	3
Antilethargic	1
Antileukemic	11
Antileukodermic	1
Antileukonychic	1
Antileukoplakic	1
Antileukotriene	5
Antileukotriene-D4	3
Antilipoperoxidant	2
Antilithic	5
Antilithic?	1
Antilupus	1
AntiLyme	5
Antilymphocytic	1

Activity	Chemical Count
Antilymphomic	4
Antimaculitic	6
Antimalarial	5
Antimange	1
Antimanic	3
Antimastalgic	1
Antimastitic	1
Antimeasles	1
Antimelanogenic	1
Antimelanomic	8
AntiMeniere's	1
Antimenopausal	5
Antimenorrhagic	3
Antimetastatic	8
Antimetastatic (Stomach)	1
Antimetrorrhagic	1
Antimigraine	5
Antimite	1
Antimitotic	3
Antimitral-valve-prolapse	1

Activity	Chemical Count
Antimorphinic	1
AntiMS	2
Antimutagenic	19
Antimyalgic	1
Antimyelotoxic	1
Antimyotrophic	1
Antimyocarditic	2
Antinarcotic	1
Antinauseant	1
Antineoplastic	1
Antinephritic	2
Antinephrolytic	1
Antineuralgic	2
Antineuramidase	1
Antineurasthenic	1
Antineuritic	2
Antineuropathic	5
Antineurotic	1
AntiNF-kB	1
Antinitrosaminic	7

Activity	Chemical Count
Antinitrosic	1
Antinociceptive	6
Antinyctalopic	2
Antiobesity	8
Antionychyotic	2
Antiophidic	3
Antiophthalmic	1
Antiorchitic	1
Antiosteoarthritic	4
Antiosteoporotic	9
Antiotitic	1
Antiototic	1
Antioxidant	41
Antioxidant (LDL)	1
Antioxidant Synergist	2
Antioxidant?	2
Antiozenic	1
Antipancreatitic	1
Antipapillomic	1
Antiparkinsonian	8

Activity	Chemical Count
Antiparotitic	1
Antipellagic	3
Antiperiodontal	1
Antiperiodontic	2
Antiperiodontitic	4
Antiperistaltic	2
Antipermeability	1
Antiperoxidant	6
Antiperoxidative	1
Antiperoxyinitrite	1
Antipharyngitic	1
Antiphenylketonuric	2
Antiphotophobic	2
Antipityriasic	1
Antiplatelet	6
Antiplasmodial	1
Antiplatelet	2
AntiPMS	6
Antipneumonic	2
Antipodriac	2

Activity	Chemical Count
Antipolio	1
Antipoliomyelitic	2
Antiporphyrin	1
Antiprogestational	1
Antiprolactin	1
Antiproliferant	13
Antiproliferative	3
Antiprostaglandin	6
Antiprostanoid	1
Antiprostataadenomic	1
Antiprostatic	8
Antiprostatotic	1
Antiprotozoal	1
Antipruritic	2
Antipsoriac	3
Antipsychotic	3
Antipurpuric	1
Antipyretic	3
Antiradicular	15
AntiRaynaud's	3

Activity	Chemical Count
Antiretardation	1
Antiretinitic Optometry	1
Antiretinopathic	2
Antiretinotic	2
Antirheumatalgic	1
Antirheumatic	8
Antirheumatitic?	1
Antirhinitic	2
AntiRNA	1
Antisalmonella	4
Antischizophrenic	1
Antiscoliotic	1
Antiscorbutic	1
Antiscotomic	1
Antiseborrheic	3
Antiseptic	28
Antiserotonergic	1
Antiserotonin	1
Antishingles	1
Antishock	1

Activity	Chemical Count
Antisickling	4
Antisilicotic	1
Antisindhis	1
Antispare-Tire	1
Antispasmodic	24
Antispasmophilic	1
AntiSpina-Bifida	1
Antistaphylococcic	8
Antisteatotic	1
Antistomatitic	3
Antistreptococcic	7
Antistress	5
Antistroke	3
Antisunburn	2
Antisuperoxidogenic	1
Antisyndrome-X	6
Antithiamin	2
Antithrombic	2
Antithrombogenic	1
Antithromboxane	1

Activity	Chemical Count
Antithyroid	2
Antitic	1
Antitinnitic	2
Antitrichinosic	1
Antitriglyceride	3
Antitrypanosomic	2
Antitubercular	3
Antitumor	20
Antitumor (Bladder)	3
Antitumor (brain)	1
Antitumor (Breast)	9
Antitumor (Cervix)	3
Antitumor (CNS)	1
Antitumor (Colon crypts)	1
Antitumor (Colon)	7
Antitumor (Esophagus)?	1
Antitumor (Forestomach)	1
Antitumor (Gastric)	2
Antitumor (Liver)	1
Antitumor (Lung)	6

Activity	Chemical Count
Antitumor (Mouth)	1
Antitumor (Ovary)	1
Antitumor (Pancreas)	2
Antitumor (Prostate)	6
Antitumor (Skin)	5
Antitumor (Stomach)	3
Antitumor-Promoter	8
Antitussive	3
Antiulcer	21
Antiulcerogenic	2
Antiuremic	1
Antiuricosuric	1
AntiUTI	1
Antivaccinia	3
Antivaginitic	2
Antivaricose	2
Antivertigo	1
Antiviral	22
Antiviral?	1
Antivitaligic	1

Activity	Chemical Count
Antixerophthalmic	1
Antiyeast	1
Anxiolytic	9
AP-1-Inhibitor	1
Aphidifuge	1
Aphrodisiac	1
Apoptotic	12
Aromatase-Inhibitor	1
Arrhythmigenic	1
Artemicide	2
Arteriodilator	1
Ascaricide	1
Asthma-preventive	1
Astringent	2
Ataxigenic	1
Atherogenic	1
ATPase-Inhibitor	1
Bacteriostatic	1
Bacteristat	2
Barbituate-Synergist	1

Activity	Chemical Count
Beta-Adrenergic Receptor Blocker	1
Beta-Blocker	2
Beta-Glucuronidase-Inhibitor	1
Bradycardiac	1
Bronchoprotectant	1
Bronchorelaxant	2
Bruchifuge	1
Bruchiphobe	3
Calcium-Antagonist	8
Calcium-Channel-Blocker	1
Calmodulin-Antagonist	1
cAMP-Phosphodiesterase-Inhibitor	4
Cancer-Preventive	46
Candidicide	15
Candidostat	3
Capillariprotective	3
Carcinogenic	5
Cardiac	2
Cardiodepressant	1
Cardiomyopathogenic	1

Activity	Chemical Count
Cardioprotective	11
Cardiotonic	3
Cardiotoxic	1
Cardiovascular	3
Carminative	4
Caspase-8-Inducer	1
Catabolic	5
Cerebrotonic	1
cGMP-Phosphodiesterase-Inhibitor	1
Chemopreventive	10
Chemopreventive-Inhibitor	1
Cholagogue	3
Choleretic	9
Cholesterolytic	1
Cholinergic	3
Cicatrizant	1
Circulotonic	2
Clastogenic	2
CNS-Active	1
CNS-Depressant	7

Activity	Chemical Count
CNS-Inhibitor	1
CNS-Paralytic	1
CNS-Stimulant	3
Co-carcinogenic	1
Cold-preventive	1
Coleoptophile	1
Collagen-Sparing	1
Collagenic	2
Collyrium	1
Colorant	8
Comedogenic	1
Comedolytic	1
COMP-Inhibitor	1
COMT-Inhibitor	2
Contraceptive	1
Copper-Antagonist	1
Copper-Chelator	1
Coronary-Dilator	1
Counterirritant	1
COX-1-Inhibitor	1

Activity	Chemical Count
COX-2-Inhibitor	3
Culicide	2
Cyclooxygenase-Inhibitor	4
Cytochrome-P450-1A2-Inhibitor	1
Cytochrome-P450-Inducer	1
Cytochrome-P450-Inhibitor	1
Cytoprotective	3
Cytotoxic	4
Decarboxylase-Inhibitor	1
Deiodinase-Inhibitor	1
Deliriant	1
Demulcent	2
Dentifrice	1
Deodorant	3
Depressant	1
Dermal	1
Dermatitigenic	3
Detoxicant	2
Detoxicant (Alcohol)	1
Diagnostic	1

Activity	Chemical Count
Diaphoretic?	2
Differentiator	2
Disinfectant	1
Diuretic	14
DME-Inhibitor	2
DNA-Active	1
DNA-Protective	1
Dye	3
Embryotoxic	3
Emetic	3
Emmenagogue	2
Encephalopathic	1
Energizer	2
Enterocontractant	1
Enterorelaxant	1
Enterotoxic	1
Ergogenic	1
Ergotamine-Enhancer	1
ERK-1-Inhibitor	1
ERK-2-Inhibitor	1

Activity	Chemical Count
Erythrocytogenic	1
Essential	8
Estrogenic	7
Estrogenic?	1
Ethanolytic	1
Expectorant	9
Fatal	1
Febrifuge	1
Fibrinolytic	1
Fistula-Preventive	1
Flatugenic	1
FLavor	44
Fungicide	32
Fungiphilic	1
Fungistat	4
GABA-nergic	1
Gastroirritant	1
Gastroprotective	2
Glucosyl-Transferase-Inhibitor	1
Glutathionigenic	2

Activity	Chemical Count
Gonadotrophic	1
Gram(+)icide	1
Gram(-)icide	1
GST-Inducer	1
Hematopoietic	1
Hemolytic	1
Hemopoietic	1
Hemostat	4
Hemostatic	1
Hepatocarcinogenic	1
Hepatomagenic	2
Hepatoprotective	14
Hepatotoxic	2
Hepatotropic	2
Herbicide	10
Histamine-Inhibitor	1
Histaminic	1
HIV-RT-Inhibitor	2
Hydrocholerectic	1
Hypercholesterolemic	2

Activity	Chemical Count
Hyperglycemic	2
Hypertensive	6
Hypnotic	3
Hypoammonemic	1
Hypoarginanemic	1
Hypocalcemic	1
Hypocholesterolemic	18
Hypocholesterolemic?	1
Hypoglycemic	12
Hypolipidemic	5
Hypotensive	17
Hypothermic	2
Hypouricemic	1
Ileorelaxant	1
Immunomodulator	10
Immunostimulant	8
Immunosuppressant	3
iNOS-Inhibitor	1
Inotropic	1
Insecticide	11

Activity	Chemical Count
Insectifuge	24
Insectiphile	5
Insulin-Sparing	1
Insulinase-Inhibitor	1
Insulinogenic	4
Insulinotonic	1
Interferon-Synergist	1
Interferonogenic	1
Interleukin-6-Inhibitor	2
Irritant	24
Juvabional	5
Keratitigenic	1
Keratolytic	1
Lactagogue	1
Larvicide	3
Larvostat	3
Laxative	7
Laxative?	2
Leptingenic	1
Leukotriene-Inhibitor	1

Activity	Chemical Count
Lipolytic	2
Lipotropic	3
Lipoxygenase-Inhibitor	7
Lithogenic	2
Litholytic	3
Lubricant	1
Lyase-Inhibitor	1
Lymphocytogenic	1
Lypolytic	1
MAO-A-Inhibitor	1
Mast-Cell-Stabilizer	1
MDR-Inhibitor	2
Memorigenic	2
Memory-Enhancer	1
Metal-Chelator	2
Metal-Chelator (Copper)	1
Metalloproteinase-Inhibitor	1
Metastatic	1
MMP-9-Inhibitor	1
Molluscicide	2

Activity	Chemical Count
Monoamine-Precursor	3
Mosquitocide	1
Mosquitofuge	2
Motor-Depressant	4
Mucogenic	3
Mucolytic	2
Mucotropic	1
Mutagenic	5
Mutagenic?	1
Mycobactericide	3
Myoprotective	1
Myorelaxant	8
NADH-Oxidase-Inhibitor	1
Natriuretic	1
Nematicide	13
Nematistat	1
Neoplastic	1
NEP-Inhibitor	1
Nephrotoxic	4
Neuroexcitant	1

Activity	Chemical Count
Neuroinhibitor	2
Neurolytic	1
Neuroprotective	4
Neurotoxic	4
Neurotransmitter	2
NF-kB-Inhibitor	3
NO-Genic	2
NO-Inhibitor	1
NO-Synthase-Inhibitor	1
Odontolytic	1
Ornithine-Decarboxylase-Inhibitor	5
Osteogenic	1
Osteolytic	1
Oviposition-Stimulant	3
Ovulant	1
Oxidant	2
Oxidase-Inhibitor	1
Oxytotic	1
Oxytotic?	1
Ozone-Scavenger	1

Activity	Chemical Count
P450-2B1-Inhibitor	5
P450-Inducer	3
P450-Inhibitor	3
PAF-Inhibitor	1
Paramecicide	1
Parasiticide	1
Parasympathomimetic	1
Percutaneostimulant	1
Perfumery	31
Peristaltic	2
Pesticide	81
PGE2-Inhibitor	1
Phagocytotic	2
Pheromone	1
Phosphodiesterase-Inhibitor	1
Phospholipase-A2-Inhibitor	1
Phospholipase-Inhibitor	1
Photosensitizer	1
Phototoxic	1
Phytohormonal	1

Activity	Chemical Count
Piscicide	1
Pituitary-Stimulant	1
Plasmodicide	1
Polyamine-Synthesis-Inhibitor	1
Preservative	2
Previtamin-A	1
ProHDL	1
Prolactinogenic	1
Proliferant	1
Prooxidant	6
Propepic	4
Prostaglandigenic	3
Prostaglandin-Sparer	1
Prostaglandin-Synthesis-Inhibitor	5
Prosticide	1
Protein-Kinase-C-Inhibitor	2
Protisticide	2
PTK-Inhibitor	1
Pyrogenic	1
Quinone-Reductase-Inducer	5

Activity	Chemical Count
Radioprotective	2
Refrigerant	1
Renoirritant	1
Renotoxic	1
Respiraparalytic	1
Respirastimulant	1
Respirotoxic	1
Retinoprotectant Optometry	1
Roborant	1
Rubefacient	2
Scabicide	1
Schizophrenigenic	1
Sclerosant	1
Sedative	19
Serotonin-Inhibitor	1
Serotoninergetic	2
Sialogogue	1
Soap	2
Spasmogenic	5
Spasmolytic	1

Activity	Chemical Count
Spermicide	3
Spermigenic	2
Sprout-Inhibitor	1
Stimulant	2
Sunscreen	3
Surfactant	1
Sweetener	4
Sympathomimetic	1
Systolic-Depressant	1
Tachycardic	1
Teratogenic	4
Teratologic	1
Termiticide	2
Termitifuge	2
Testosterone-Inducer	1
Testosteronigenic	1
Thymoprotective	1
TNF-alpha-Inhibitor	2
Topoisomerase-I-Inhibitor	4
Topoisomerase-II-Inhibitor	4

Activity	Chemical Count
Toxic	1
Tracheorelaxant	1
Tranquilizer	5
Transdermal	4
Tremorigenic	1
Tremorilytic	1
Trichomonicide	8
Triglycerigenic	1
Tumor-Promoter	2
Tumorigenic	2
Tyrosinase-Inhibitor	3
Tyrosine-Kinase-Inhibitor	2
Ubiquiot	4
Ulcerogenic	3
Uricogenic	1
Uricosuric	4
Urinary-Acidulant	1
Urinary-Antiseptic	1
Urine-Acidifier	1
Urine-Deodorant	1

Activity	Chemical Count
Uterorelaxant	1
Uterosedative	1
Uterotrophic	1
Varroacide	2
Vasoconstrictor	3
Vasodilator	14
Vasopressor	3
VEGF-Inhibitor	2
Venoprotective	1
Venotonic	1
Vermicide	2
Verrucolytic	1
Vibriocide	1
Vitamin-A-Activity	2
Vulnerary	7
Xanthine-Oxidase-Inhibitor	4