

Dr. Duke's Phytochemical and Ethnobotanical Database**Biological Activities Found in *Echinacea angustifolia***

Activity	Chemical Count
(-)-Chronotropic	2
(-)-Inotropic	2
11B-HSD-Inhibitor	3
5-Alpha-Reductase-Inhibitor	3
5-Lipoxygenase-Inhibitor	2
Abortifacient	1
Aggregant	1
Alcohol-Dehydrogenase-Inhibitor	1
Aldehyde-Oxidase-Inhibitor	1
Aldose-Reductase-Inhibitor	6
Allelochemic	3
Allergenic	4
Alpha-Reductase-Inhibitor	1
Analgesic	4
Androgenic	1
Anemiagenic	1
Angiogenic	1
Anorexic	1

Activity	Chemical Count
Antiacetylcholine	1
Antiacne	2
AntiADD	1
Antiadenomic	1
Antiaflatoxin	3
Antiaggregant	4
Antiaging	2
Antiallergic	4
Antialopepic	3
Antialzheimeran	1
Antianaphylactic	2
Antiandrogenic	4
Antiangiogenic	3
Antiarrhythmic	1
Antiartherosclerotic	1
Antiarthritic	2
Antiasthmatic	2
Antiatherogenic	1
Antiatherosclerotic	2
Antibacterial	12

Activity	Chemical Count
Antibronchitic	1
Anticancer	1
Anticancer (Breast)	1
Anticancer (Cervix)	1
Anticancer (Colon)	1
Anticancer (Foreestomach)	1
Anticancer (Liver)	1
Anticancer (Lung)	2
Anticancer (Skin)	1
Anticapillary-Fragility	1
Anticarcinogenic	2
Anticarcinomic	1
Anticarcinomic (Breast)	1
Anticariogenic	2
Anticataract	2
Anticolitic	1
Anticolitic?	1
Anticomplementary	3
Anticoronary	1
AntiCrohn's	1

Activity	Chemical Count
Anticystitic	1
Antidepressant	1
Antidermatic	2
Antidermatitic	3
Antidiabetic	3
Antidiarrheic	1
Antidyspeptic	1
AntiEBV	1
Antieczemic	1
Antiedemic	2
Antielastase	1
Antiencephalitic	1
Antiescherichic	2
Antiestrogenic	4
Antifeedant	8
Antifertility	2
Antifibrinolytic	2
Antifibrosarcomic	1
Antiflu	4
Antigastric	1

Activity	Chemical Count
Antigastritic	1
Antigenotoxic	1
Antigingivitic	1
Antigonadotrophic	1
Antigonadotropic	2
Antigranular	1
AntiGTF	1
Antihemolytic	1
Antihepatotoxic	4
Antiherpetic	6
Antihiccup	1
Antihistaminic	7
AntiHIV	6
AntiHIV-Integrase	2
Antihomocystinuric	1
Antihydrophobic	1
Antihypercholesterolemic	1
Antihyperlipoproteinaemic	1
Antihypertensive	1
Antihyperthyroid	1

Activity	Chemical Count
Antiimplantation	1
Antiinflammatory	13
AntiLegionella	1
Antileishmanic	2
Antileukemic	5
Antileukotriene	2
Antileukotriene-D4	2
Antilipolytic	1
Antilipoperoxidant	1
Antilymphocytic	1
Antilymphomic	2
Antimalarial	1
Antimelanogenic	1
Antimelanomic	3
Antimenorrhagic	1
Antimetastatic	2
AntiMS	1
Antimutagenic	6
Antimyotrophic	1
Antimyocarditic	1

Activity	Chemical Count
Antinitrosaminic	2
Antinociceptive	3
Antiobesity?	1
Antionychyotic	1
Antiophidic	2
Antiophthalmic	1
Antiosteoporotic?	1
Antiotitic	3
Antioxidant	12
Antipancreatic	1
Antiperiodontal	1
Antiperiodontic	1
Antiperistaltic	2
Antipermeability	1
Antiperoxidant	2
Antipharyngitic	1
Antiplateau	2
Antiplasmodial	1
AntiPMS	1
Antipodriac	1

Activity	Chemical Count
Antipolio	3
Antiprogestational	1
Antiproliferant	4
Antiprostaglandin	1
Antiprostanoid	1
Antiprostataadenomic	1
Antiprostatic	3
Antipsoriac	1
Antipyretic	2
Antiradicular	5
Antisalmonella	1
Antiseptic	3
Antiserotonin	1
Antispasmodic	8
Antistaph	1
Antistaphylococcic	4
Antistomatitic	3
Antistreptococcic	3
Antistress	1
Antisunburn	5

Activity	Chemical Count
Antithiamin	1
Antithrombic	1
Antithyroid	2
Antitrypanosomic	1
Antitumor	7
Antitumor (Bladder)	1
Antitumor (brain)	1
Antitumor (Breast)	3
Antitumor (Cervix)	1
Antitumor (Colon)	3
Antitumor (Forestomach)	1
Antitumor (Kidney)	1
Antitumor (Liver)	1
Antitumor (Lung)	4
Antitumor (Ovary)	2
Antitumor (Pancreas)	1
Antitumor (Skin)	4
Antitumor (Stomach)	1
Antitumor (Thyroid)	1
Antitumor-Promoter	3

Activity	Chemical Count
Antitussive	1
Antiulcer	4
Antiviral	12
Antiyeast	1
Anxiolytic	1
Aphidifuge	1
Apoptotic	5
Aromatase-Inhibitor	3
Artemicide	2
Atherogenic	1
ATPase-Inhibitor	1
Attifuge	1
Autotoxic	1
Bacteristat	3
Beta-Glucuronidase-Inhibitor	2
Bifidogenic	1
Bradycardiac	1
Bruchiphobe	1
Calcium-Antagonist	2
Calcium-Antagonist?	1

Activity	Chemical Count
Calmodulin-Antagonist	1
cAMP-Phosphodiesterase-Inhibitor	2
Cancer-Preventive	12
Candidicide	4
Capillariprotective	1
Carcinogenic	3
Cardioprotective	2
Caspase-8-Inducer	1
Catabolic	1
Chemopreventive	2
Chemopreventive (Breast Cancer)	1
Chemopreventive (Colon Cancer)	1
Cholagogue	2
Choleretic	8
Cholesterolytic	1
Clastogenic	1
CNS-Active	2
CNS-Depressant	1
CNS-Stimulant	2
CNS-Toxic	1

Activity	Chemical Count
Collagen-Sparing	4
Collyrium	1
Comedolytic	1
COMT-Inhibitor	2
Copper-Chelator	2
Cosmetic	1
COX-1-Inhibitor	1
COX-2-Inhibitor	3
Cyclooxygenase-Inhibitor	3
Cytochrome-P450-1A1-Inhibitor	1
Cytochrome-P450-1A2-Inhibitor	1
Cytoprotective	1
Cytotoxic	4
Deiodinase-Inhibitor	3
Demulcent	1
Dermatitigenic	1
Diaphoretic?	2
Differentiator	3
Diuretic	6
DNA-Protective	1

Activity	Chemical Count
Emmenagogue	1
Estrogenic	6
Ethanolytic	1
Expectorant	3
Febrifuge	1
Flatugenic	1
FLavor	5
Fungicide	5
Fungistat	1
Gastroprotective	1
Gastrostimulant	1
Glucosyl-Transferase-Inhibitor	1
Gonadotrophic	1
Hemolytic	1
Hemostat	1
Hepatomagenic	1
Hepatoprotective	10
Hepatoregenerative	1
Hepatotonic	1
Herbicide	1

Activity	Chemical Count
HIF-1alpha-Inhibitor	1
Histamine-Inhibitor	1
HIV-RT-Inhibitor	2
Hyaluronidase-Inhibitor	4
Hypercholesterolemic	3
Hyperemic	1
Hypocholesterolemic	7
Hypoglycemic	4
Hypolipidemic	2
Hypotensive	2
Hypotriglyceridemic	1
ICAM-1-Inhibitor	3
IKK-Inhibitor	2
Immunomodulator	1
Immunostimulant	5
Inhalant	1
iNOS-Inhibitor	4
Inotropic	3
Insect-Repellent	1
Insecticide	1

Activity	Chemical Count
Insectifuge	7
Insulinogenic	1
Interferonogenic	1
Interleukin-6-Inhibitor	1
Iodothyronine-Deiodinase-Inhibitor	2
Irritant	3
JNK-Inhibitor	1
Juvabonal	3
Larvicide	2
Larvostat	2
Laxative	1
Leukotriene-Inhibitor	1
Lipolytic	2
Lipotropic	1
Lipoxygenase-Inhibitor	4
Lubricant	2
MAO-A-Inhibitor	1
MAO-Inhibitor	3
MAPK-Inhibitor	2
Mast-Cell-Stabilizer	1

Activity	Chemical Count
Metal-Chelator	1
Metal-Chelator (Copper)	1
Metalloproteinase-Inhibitor	2
Metastatic	1
MMP-9-Inhibitor	2
Mosquitocide	1
Mucogenic	1
Musculotropic	1
Mutagenic	3
Myorelaxant	4
NADH-Oxidase-Inhibitor	2
Natriuretic	1
Nematicide	4
NEP-Inhibitor	2
Neuroprotective	2
NF-kB-Inhibitor	3
NO-Genic	1
NO-Inhibitor	3
NO-Synthase-Inhibitor	2
Nodulation-Signal	1

Activity	Chemical Count
Ornithine-Decarboxylase-Inhibitor	3
Oviposition-Stimulant	1
Ovulant	1
P21-Inducer	1
P450-Inducer	1
P450-Inhibitor	1
PAF-Inhibitor	1
Percutaneostimulant	1
Perfumery	3
Pesticide	22
PGE2-Inhibitor	1
Phagocytotic	2
Pheromone	1
Phospholipase-Inhibitor	1
PKC-Inhibitor	1
Plasmodicide	1
Polyamine-Synthesis-Inhibitor	1
Prebiotic	1
Preservative	1
Probiotic	1

Activity	Chemical Count
Probiotigenic	1
Progestational	1
Proliferant	2
Propepic	3
Prostaglandin-Synthesis-Inhibitor	1
Prostaglandin-Synthetase-Inhibitor	1
Protein-Kinase-C-Inhibitor	3
Protisticide	1
PTK-Inhibitor	3
Quinone-Reductase-Inducer	4
Radioprotective	1
Sedative	5
Sialogogue	1
Soap	1
Spermicide	1
Succinoxidase-Inhibitor	1
Sunscreen	2
Sweetener	3
Teratologic	2
Termitifuge	1

Activity	Chemical Count
TNF-alpha-Inhibitor	4
Topoisomerase-I-Inhibitor	4
Topoisomerase-II-Inhibitor	3
Tranquilizer	1
Triglycerigenic	1
Tumorigenic	1
Tyrosinase-Inhibitor	2
Tyrosine-Kinase-Inhibitor	1
Ubiquiot	1
Ulcerogenic	1
Uricogenic	1
Uterotrophic	2
Vasodilator	5
VEGF-Inhibitor	3
Vulnerary	3
Xanthine-Oxidase-Inhibitor	3