

Activity	Chemical Count	Reference
<u>(-)-Chronotropic</u>	3	Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.
<u>(-)-Inotropic</u>	3	Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.
<u>11B-HSD-Inhibitor</u>	1	Duke, 1992 *
<u>ABeta-Inhibitor</u>	1	Duke, 1992 *
<u>Abortifacient</u>	2	Duke, 1992 *
<u>Acaricide</u>	5	Duke, 1992 *
<u>ACE-Inhibitor</u>	3	Duke, 1992 *
<u>AChE-Inhibitor</u>	1	Grundy, D. L. and Still, C. C., Inhibition of acetylcholinesterases by pulegone-1,2-epoxide, Oest. Biochem. & Physiol., 23, 1985, 383-8.
<u>Adenylate-Cyclase-Inhibitor</u>	1	Duke, 1992 *
<u>Aldose-Reductase-Inhibitor</u>	10	Duke, 1992 *
<u>Allelochemic</u>	3	Duke, 1992 *
<u>Allelopathic</u>	3	Duke, 1992 *
<u>Allergenic</u>	14	Duke, 1992 *
<u>Analgesic</u>	8	Duke, 1992 *
<u>Ancylostomicide</u>	1	Madaus, G. 1976. Lehrbuch der Biologischen Hilfsmittel. Vol., 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus.
<u>Anesthetic</u>	5	Duke, 1992 *
<u>Ankylostomacide</u>	1	Madaus, G. 1976. Lehrbuch der Biologischen Hilfsmittel. Vol., 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus.

Activity	Chemical Count	Reference
<u>Anthelmintic</u>	5	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
<u>Antiacetylcholine</u>	1	Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
<u>Antiacetylcholinesterase</u>	6	Duke, 1992 *
<u>Antiacne</u>	6	Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp.
<u>AntiADD</u>	1	Duke, 1992 *
<u>Antiadenomic</u>	1	Duke, 1992 *
<u>Antiadenoviral</u>	1	Economic & Medicinal Plant Research, 5: 207.
<u>Antiaflatoxin</u>	1	Duke, 1992 *
<u>Antiaggregant</u>	4	Duke, 1992 *
<u>Antiaging</u>	2	Duke, 1992 *
<u>Antiallergenic</u>	2	Duke, 1992 *
<u>Antiallergic</u>	6	J. Food Hyg. Soc. Jap. 33(6): 569.
<u>Antialzheimeran</u>	2	Ringbom, T., Seguar, L., Noreen, Y., Perera, P., Bohlin, L. 1998. Ursolic Acid from <i>Plantago major</i> , a Selective Inhibitor of Cyclooxygenase-2 Catalyzed Prostaglandin Biosynthesis. <i>J. Nat. Prod.</i> , 61(10): 1212-1215.
<u>Antialzheimeran?</u>	3	Grundy, D. L. and Still, C. C., Inhibition of acetylcholinesterases by pulegone-1,2-epoxide, <i>Oest. Biochem. & Physiol.</i> , 23, 1985, 383-8.
<u>Antianaphylactic</u>	2	Int. J. Immunopharmacology. Vol 10: 729, 1988.
<u>Antiangiogenic</u>	1	Duke, 1992 *
<u>Antiarrhythmic</u>	3	Duke, 1992 *
<u>Antiarthritic</u>	2	<i>Planta Medica</i> , 57: A56, 1991.
<u>Antiasthmatic</u>	4	<i>Chin. J. Tuber. Respir. Dis.</i> , 4:203, 1982.
<u>Antiatherogenic</u>	1	Duke, 1992 *

Activity	Chemical Count	Reference
<u>Antiatherosclerotic</u>	4	Duke, 1992 *
<u>Antibacillary</u>	1	Duke, 1992 *
<u>Antibacterial</u>	25	Revista Itiliana Epos, 12: 5, 1994.
<u>Antibronchitic</u>	3	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
<u>Anticancer</u>	6	Duke, 1992 *
<u>Anticancer (Colon)</u>	1	Ringbom, T., Seguar, L., Noreen, Y., Perera, P., Bohlin, L. 1998. Ursolic Acid from Plantago major, a Selective Inhibitor of Cyclooxygenase-2 Catalyzed Prostaglandin Biosynthesis. <i>J. Nat. Prod.</i> , 61(10): 1212-1215.
<u>Anticancer (Lung)</u>	1	Duke, 1992 *
<u>Anticancer (Pancreas)</u>	1	Duke, 1992 *
<u>Anticarcinogenic</u>	1	Economic & Medicinal Plant Research, 6: 189.
<u>Anticarcinomic</u>	2	Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. <i>Am J Chin Med</i> , 31(1):37-46.
<u>Anticariogenic</u>	9	Muroi, H. and Kubo, I. 1993. Combination Effects of Antibacterial Compounds in Green Tea Flavor against <i>Streptococcus mutans</i> . <i>J. Agric. Food Chem.</i> 41: 1102-1105.
<u>Anticatarrh</u>	1	Martindale's 29th
<u>Anticholestatic</u>	1	Shukla, B., Visen, P.K.S., Patnaik, G.K., Tripathi, S.C., Srimal, R.C., Dayal, R., and Dobhal, P.C. Hepatoprotective Activity in the Rat of Ursolic Acid Isolated from Eucalyptus Hybrid. <i>Phytotherapy Research</i> 6: 74-79, 1992.
<u>Anticholinesterase</u>	2	Duke, 1992 *
<u>Anticholinesterase?</u>	1	L. Gracza (1985) as cited by Buchbauer re antiacetylcholinesterase.
<u>Anticoagulant</u>	1	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.

Activity	Chemical Count	Reference
<u>Anticomplement</u>	2	Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.
<u>Anticomplementary</u>	2	Duke, 1992 *
<u>Anticonvulsant</u>	1	Duke, 1992 *
<u>Antidepressant</u>	2	Duke, 1992 *
<u>Antidermotic</u>	1	Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
<u>Antidermatitic</u>	2	Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
<u>Antidiabetic</u>	1	Chemical Constituents of Oriental Herbs (3 diff. books)
<u>Antidiarrheic</u>	1	Duke, 1992 *
<u>Antidiuretic</u>	1	Lawrence Review of Natural Products, Mar-92.
<u>Antidysenteric</u>	1	Duke, 1992 *
<u>AntiEBV</u>	1	Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
<u>Antiedemic</u>	5	Shimizu,*M., et al. 1990. Anti-inflammatory Constituents of Topically Applied Crude Drugs. IV.1) Constituents and Anti-inflammatory Effect of Paraguayan Crude Drug 'Alhucema' (<i>Lavandula latifolia</i> Vill.)2). Chem. Pharm. Bull. 38(8): 2283-2284, 1990.
<u>Antielastase</u>	1	Duke, 1992 *
<u>Antiescherichic</u>	3	Duke, 1992 *
<u>Antiesophagitic</u>	1	Duke, 1992 *
<u>Antiestrogenic</u>	1	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
<u>Antifatigue</u>	1	Duke, 1992 *

Activity	Chemical Count	Reference
Antifeedant	7	Duke, 1992 *
Antifertility	1	Duke, 1992 *
Antifibrosarcomic	1	Duke, 1992 *
Antiflu	5	Economic & Medicinal Plant Research, 5: 195.
Antigingivitic	1	Duke, 1992 *
Antigonadotropic	2	Jim Duke's personal files.
Antihalitotic	2	American Health, 12(4): 17, 1993.
Antihelicobacter	2	Duke, 1992 *
Antihemolytic	3	Ohnishi, M., Morishita, H., Iwahashi, H., Toda, S., Shirataki, Y., Kimura, M., and Kido, R. 1993. Inhibitory Effects of Chlorogenic Acids on Linoleic Acid Peroxidation and Haemolysis. Phytochemistry. 36(3): 579-583. 1994.
Antihepatoadenomic	1	Duke, 1992 *
Antihepatotoxic	5	Duke, 1992 *
Antiherpetic	6	Duke, 1992 *
Antihistaminic	4	Duke, 1992 *
AntiHIV	6	Duke, 1992 *
Antihypercholesterolemic	1	Economic & Medicinal Plant Research, 6: 189.
Antihyperlipidemic	2	Duke, 1992 *
Antihypertensive	1	Duke, 1992 *
Antihyperthyroid	2	Duke, 1992 *
Antiinflammatory	15	Shimizu,*M., et al. 1990. Anti-inflammatory Constituents of Topically Applied Crude Drugs. IV.1) Constituents and Anti-inflammatory Effect of Paraguayan Crude Drug 'Alhucema' (<i>Lavandula latifolia</i> Vill.)2). Chem. Pharm. Bull. 38(8): 2283-2284, 1990.
Antiintegrase	1	Duke, 1992 *
Antiischemic	1	Duke, 1992 *
Antilaryngitic	1	Duke, 1992 *

Activity	Chemical Count	Reference
AntiLegionella	1	Duke, 1992 *
Antileishmanic	3	Duke, 1992 *
Antileptic	1	Madaus, G. 1976. Lehrbuch der Biologischen Hilfsmittel. Vol., 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus.
Antileukemic	5	Economic & Medicinal Plant Research, 5: 225.
Antileukotriene	3	Duke, 1992 *
Antilipolytic	1	Duke, 1992 *
Antilipoperoxidant	1	Duke, 1992 *
Antilithic	1	Duke, 1992 *
Antilithic?	1	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antilymphomic	2	Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
Antimalarial	2	Duke, 1992 *
Antimelanogenic	1	Duke, 1992 *
Antimelanomic	4	Duke, 1992 *
Antimetastatic	2	Duke, 1992 *
Antimetastatic (Stomach)	1	Duke, 1992 *
Antimutagenic	7	Economic & Medicinal Plant Research, 6: 235.
Antinephritic	4	Uchida, U., Ohta, H., Niwa, M., Mori, A., Nonaka, G-i., Nishioka, I., and Zaki, M. 1989. Prolongation of Life Span of Stroke-Prone Spontaneously Hypertensive Rats (SHRSP) Ingesting Persimmon Tannin. Chem. Pharm. Bull. 38(4): 1049-1052, 1990.
Antineuritic	1	Duke, 1992 *

Activity	Chemical Count	Reference
<u>Antinitrosaminic</u>	3	Ki Soon Rhee. Oilseed Food Ingredients Used To Minimize Oxidative Flavor Deterioration in Meat Products. Phenolic Compounds in Food and Their Effects on Health, Ch.18.
<u>Antinociceptive</u>	2	Rao, V.S.N., Menezes, A.M.S., Viana, G.S.B. 1990. Effect of myrcene on nociception in mice. J. Pharm. Pharmacol. 42: 877-878, 1990.
<u>Antiobesity</u>	1	Duke, 1992 *
<u>Antiobesity?</u>	1	Internat. J. Oriental Med. 16: 4.
<u>Antionychyotic</u>	1	Taylor, Leslie. 2005. The Healing Power of Rainforest Herbs. SquareOne Publisher, Garden City Park, NY. 519 pp.
<u>Antiophidic</u>	2	Economic & Medicinal Plant Research, 5: 363.
<u>Antitotic</u>	1	Duke, 1992 *
<u>Antioxidant</u>	15	Jim Duke's personal files.
<u>Antioxidant (LDL)</u>	3	Duke, 1992 *
<u>Antiperiodontic</u>	2	Duke, 1992 *
<u>Antiperistaltic</u>	1	Duke, 1992 *
<u>Antiperoxidant</u>	3	Planta Medica, 57: A54, 1991.
<u>AntiPGE2</u>	1	Duke, 1992 *
<u>Antipharyngitic</u>	1	Duke, 1992 *
<u>Antiplaque</u>	5	Osawa, K., Matsumoto, T., Maruyama, T., Takiguchi, T., Okuda, K., and Takazoe, I., Studies of the antibacterial activity of plant extracts and their constituents against periodontopathic bacteria, Bull Tokyo Dent. Coll., 31 (1), 1990, 17-21
<u>Antiplasmodial</u>	2	Duke, 1992 *
<u>Antipneumonic</u>	1	Duke, 1992 *
<u>Antiproliferant</u>	5	Joseph, J., Nadeau, D. and Underwood, A. 2001. The Color Code. Hyperion, NY.
<u>Antiproliferative</u>	1	Duke, 1992 *
<u>Antiprostaglandin</u>	3	Duke, 1992 *

Activity	Chemical Count	Reference
<u>Antiproteolytic</u>	1	Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.
<u>Antipulmonotic</u>	1	Tyler, V.E.. 1994.
<u>Antipyretic</u>	1	Duke, 1992 *
<u>Antiradicular</u>	5	Ohnishi, M., Morishita, H., Iwahashi, H., Toda, S., Shirataki, Y., Kimura, M., and Kido, R. 1993. Inhibitory Effects of Chlorogenic Acids on Linoleic Acid Peroxidation and Haemolysis. <i>Phytochemistry</i> . 36(3): 579-583. 1994.
<u>Antirenitic</u>	1	Uchida, U., Ohta, H., Niwa, M., Mori, A., Nonaka, G-i., Nishioka, I., and Zaki, M. 1989. Prolongation of Life Span of Stroke-Prone Spontaneously Hypertensive Rats (SHRSP) Ingesting Persimmon Tannin. <i>Chem. Pharm. Bull.</i> 38(4): 1049-1052, 1990.
<u>Antirheumatalgic</u>	1	Martindale's 28th
<u>Antirheumatic</u>	2	Williamson, E. M. and Evans, F. J., <i>Potter's New Cyclopaedia of Botanical Drugs and Preparations</i> , Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
<u>Antirhinitic</u>	1	Duke, 1992 *
<u>Antirhinoviral</u>	2	Denyer, C.V., Jackson, P., Loakes, D.M., Ellis, M.R., and Yound, D.A.B. Isolation of Antirhinoviral Sesquiterpenes From Ginger (<i>Zingiber officinale</i>). <i>Journal of Natural Products</i> , 57(5): 658-662, 1994.
<u>Antisalmonella</u>	3	Duke, 1992 *
<u>Antisarcomic</u>	1	Duke, 1992 *
<u>Antiseptic</u>	14	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
<u>Antishock</u>	2	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.

Activity	Chemical Count	Reference
<u>Antisinusitic</u>	1	Duke, 1992 *
<u>Antispasmodic</u>	18	Fitoterapia No.59-1984.
<u>Antistaphylococcic</u>	9	Duke, 1992 *
<u>Antistomatitic</u>	1	Economic & Medicinal Plant Research, 5: 207.
<u>Antistreptococcic</u>	6	Duke, 1992 *
<u>Antistress</u>	1	Duke, 1992 *
<u>Antisunburn</u>	1	Duke, 1992 *
<u>AntiTGF-beta</u>	2	Duke, 1992 *
<u>Antithiamin</u>	1	Phenolic Compounds in Food and Their Effects on Health, 69.
<u>Antithromboxane</u>	1	Duke, 1992 *
<u>Antithyreotropic</u>	1	Duke, 1992 *
<u>Antithyroid</u>	3	Jim Duke's personal files.
<u>Antitrichinosic</u>	1	Madaus, G. 1976. Lehrbuch der Biologischen Hilfsmittel. Vol., 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus.
<u>Antitrypanosomic</u>	1	Duke, 1992 *
<u>Antitubercular</u>	1	Duke, 1992 *
<u>Antitumor</u>	9	Zheng, G-Q., Kenney, P.M., and Lam, L.K.T. Sesquiterpenes From Clove (<i>Eugenia caryophyllata</i>) As Potential Anticarcinogenic Agents. <i>Journal of Natural Products</i> 55(7): 999-1003, 1992.
<u>Antitumor (brain)</u>	1	Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. <i>Am J Chin Med</i> , 31(1):37-46.
<u>Antitumor (Breast)</u>	4	Duke, 1992 *
<u>Antitumor (Cervix)</u>	1	Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. <i>Am J Chin Med</i> , 31(1):37-46.
<u>Antitumor (Colon)</u>	4	Duke, 1992 *

Activity	Chemical Count	Reference
<u>Antitumor (Kidney)</u>	1	Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. <i>Am J Chin Med</i> , 31(1):37-46.
<u>Antitumor (Liver)</u>	1	Duke, 1992 *
<u>Antitumor (Lung)</u>	3	Duke, 1992 *
<u>Antitumor (Ovary)</u>	1	Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. <i>Am J Chin Med</i> , 31(1):37-46.
<u>Antitumor (Pancreas)</u>	3	Duke, 1992 *
<u>Antitumor (Prostate)</u>	1	Duke, 1992 *
<u>Antitumor (Skin)</u>	3	Duke, 1992 *
<u>Antitumor (Stomach)</u>	2	Duke, 1992 *
<u>Antitumor-Promoter</u>	3	Cancer Research, 48: 5941.
<u>Antitussive</u>	5	Duke, 1992 *
<u>Antiulcer</u>	10	Yamahara, J., et al. Stomachic principles in ginger. II. Pungent and anti-ulcer effects of low polar constituents isolated from ginger, the dried rhizoma of... <i>Yakugaku Zasshi</i> 112: 645-655 (1992).
<u>Antiulcerogenic</u>	1	Duke, 1992 *
<u>Antiuremic</u>	1	Duke, 1992 *
<u>Antivaccinia</u>	1	Economic & Medicinal Plant Research, 5: 207.
<u>Antiviral</u>	15	Duke, 1992 *
<u>Antiyeast</u>	1	Duke, 1992 *
<u>Anxiolytic</u>	3	Duke, 1992 *
<u>Apoptotic</u>	4	Duke, 1992 *
<u>Aromatase-Inhibitor</u>	3	Duke, 1992 *
<u>Ascaricide</u>	1	Madaus, G. 1976. Lehrbuch der Biologischen Hilfsmittel. Vol., 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus.

Activity	Chemical Count	Reference
<u>Ataxigenic</u>	1	Zeebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253.
<u>Bacteriostatic</u>	1	Chin. J. Tuber. Respir. Dis.
<u>Barbituate-Synergist</u>	1	Duke, 1992 *
<u>Beta-Blocker</u>	2	Duke, 1992 *
<u>Beta-Glucuronidase-Inhibitor</u>	3	Duke, 1992 *
<u>Bronchoprotectant</u>	1	Duke, 1992 *
<u>Bronchorelaxant</u>	1	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.
<u>Calcium-Antagonist</u>	3	Duke, 1992 *
<u>Calcium-Antagonist?</u>	1	Biochimica & Biophysica Acta, 1115: 69, 1991.
<u>Cancer-Preventive</u>	11	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
<u>Candidicide</u>	9	Duke, 1992 *
<u>Candidistat</u>	1	Duke, 1992 *
<u>Carcinogenic</u>	4	Duke, 1992 *
<u>Cardioprotective</u>	2	Duke, 1992 *
<u>Cardiotonic</u>	2	Duke, 1992 *
<u>Carminative</u>	3	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
<u>Caspase-3-Inducer</u>	1	Duke, 1992 *
<u>Chelator</u>	1	Duke, 1992 *
<u>Chemopreventive</u>	4	Duke, 1992 *
<u>Cholagogue</u>	2	Wichtl, M. 1984. Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp.
<u>Choleretic</u>	5	Duke, 1992 *

Activity	Chemical Count	Reference
<u>Cholesterolytic</u>	1	Duke, 1992 *
<u>Clastogenic</u>	1	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
<u>CNS-Active</u>	1	Wichtl, M. 1984. Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp.
<u>CNS-Depressant</u>	2	Duke, 1992 *
<u>CNS-Stimulant</u>	3	Duke, 1992 *
<u>CNS-Toxic</u>	1	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
<u>Co-carcinogenic</u>	1	Duke, 1992 *
<u>Coleoptophile</u>	1	Duke, 1992 *
<u>Collagen-Sparing</u>	1	Duke, 1992 *
<u>Convulsant</u>	1	Duke, 1992 *
<u>Counterirritant</u>	2	Martindale's 29th
<u>COX-1-Inhibitor</u>	2	Duke, 1992 *
<u>COX-2-Inhibitor</u>	5	Duke, 1992 *
<u>Culicide</u>	2	Duke, 1992 *
<u>Cyclooxygenase-Inhibitor</u>	6	Duke, 1992 *
<u>Cytochrome-P450-1A1-Inhibitor</u>	1	Duke, 1992 *
<u>Cytochrome-P450-Inducer</u>	2	Duke, 1992 *
<u>Cytoprotective</u>	1	Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
<u>Cytotoxic</u>	5	Planta Medica, 57: A113, 1991.
<u>Decongestant</u>	1	Duke, 1992 *
<u>Degranulant</u>	1	Duke, 1992 *

Activity	Chemical Count	Reference
Deiodinase-Inhibitor	2	Jim Duke's personal files.
Dentifrice	2	Martindale's 29th
Deodorant	1	Martindale's 28th
Dermatitigenic	1	Duke, 1992 *
Detoxicant	1	Duke, 1992 *
Differentiator	1	Duke, 1992 *
Diuretic	5	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
DNA-Active	1	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
DNA-Protective	2	Duke, 1992 *
Edemagenic	1	Duke, 1992 *
Elastase-Inhibitor	2	Duke, 1992 *
Embryotoxic	1	Duke, 1992 *
Emetic	1	Lawrence Review of Natural Products, Sep-97.
Enterococontractant	1	J. Aromatherapy 4: 22.
Enterorelaxant	2	J. Aromatherapy 4: 22.
Enterotoxic	1	Wichtl, M. 1984. Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp.
Estrogenic	2	Journal of Medicinal Food 2: 227.1999.
Expectorant	10	Duke, 1992 *
FLavor	23	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
Fungicide	12	Duke, 1992 *
Fungiphilic	1	J. Agric. Food Chem. 43: 2283.
Fungistat	1	Duke, 1992 *

Activity	Chemical Count	Reference
<u>Gastroirritant</u>	1	Martindale's 29th
<u>Gastroprotective</u>	2	Duke, 1992 *
<u>Glaucomagenic</u>	1	Duke, 1992 *
<u>Glucosyl-Transferase-Inhibitor</u>	1	Duke, 1992 *
<u>Glutathionigenic</u>	1	Duke, 1992 *
<u>Gram(+)icide</u>	2	Duke, 1992 *
<u>Gram(-)icide</u>	2	Duke, 1992 *
<u>GST-Inducer</u>	1	Duke, 1992 *
<u>Hepatocarcinogenic</u>	1	Duke, 1992 *
<u>Hepatoprotective</u>	5	Duke, 1992 *
<u>Hepatotonic</u>	1	Duke, 1992 *
<u>Hepatotropic</u>	1	Duke, 1992 *
<u>Herbicide</u>	10	Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp.
<u>HIF-1alpha-Inhibitor</u>	1	Duke, 1992 *
<u>Histamine-Inhibitor</u>	1	Duke, 1992 *
<u>Histaminic</u>	1	Duke, 1992 *
<u>Hyaluronidase-Inhibitor</u>	1	Duke, 1992 *
<u>Hypocholesterolemic?</u>	1	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
<u>Hypoglycemic</u>	1	Ivorra, M.D., Paya, M., and Villar, A. 1989. A Review of Natural Products and Plants as Potential Antidiabetic Drugs. Journal of Ethnopharmacology, 27: 243-275, 1989.
<u>Hypolipemic</u>	1	Duke, 1992 *
<u>Hypotensive</u>	4	Duke, 1992 *
<u>Hypothermic</u>	1	Duke, 1992 *

Activity	Chemical Count	Reference
<u>ICAM-1-Inhibitor</u>	1	Duke, 1992 *
<u>IKK-Inhibitor</u>	1	Duke, 1992 *
<u>Immunomodulator</u>	4	Duke, 1992 *
<u>Immunostimulant</u>	2	Duke, 1992 *
<u>Immunosuppressant</u>	1	Duke, 1992 *
<u>Inflammatory</u>	1	Duke, 1992 *
<u>Inhalant</u>	1	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
<u>iNOS-Inhibitor</u>	1	Duke, 1992 *
<u>Inotropic</u>	1	Duke, 1992 *
<u>Insect-Repellent</u>	1	Duke, 1992 *
<u>Insecticide</u>	6	Duke, 1992 *
<u>Insectifuge</u>	19	Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990.
<u>Insectiphile</u>	3	J. Stored. Prod. Res., 22:141, 1986.
<u>Interleukin-6-Inhibitor</u>	2	Duke, 1992 *
<u>Irritant</u>	13	Duke, 1992 *
<u>Larvicide</u>	3	Berenbaum, M. R., The natives knew, Chemtech, (May), 1990, 275-279.
<u>Laxative</u>	1	Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253.
<u>Leucocytogenic</u>	2	Duke, 1992 *
<u>Leukotriene-Inhibitor</u>	1	Duke, 1992 *
<u>Lipolytic</u>	1	Duke, 1992 *
<u>Lipoxygenase-Inhibitor</u>	4	Oszmianski, J. and Lee, C.Y. 1990. Inhibitory Effect of Phenolics on Carotene Bleaching in Vegetables. J. Agric. Food Chem. 38: 688-690.

Activity	Chemical Count	Reference
<u>Lyase-Inhibitor</u>	1	Duke, 1992 *
<u>MAO-Inhibitor</u>	2	Duke, 1992 *
<u>MAPK-Inhibitor</u>	1	Duke, 1992 *
<u>Metal-Chelator</u>	1	McEvily, A.J., Iyengar, R., and Gross, A.T. Inhibition of Polyphenol Oxidase by Phenolic Compounds. Phenolic Compounds in Food and Their Effects on Health, Ch.25.
<u>MMP-9-Inhibitor</u>	1	Duke, 1992 *
<u>Molluscicide</u>	1	Duke, 1992 *
<u>Mosquitocide</u>	1	Duke, 1992 *
<u>Motor-Depressant</u>	1	Buchbauer et al, e.g.Buchbauer et al,1993.Therapeutic properties of essential oils and fragrances. Chap.12 in Teranishi,R, Buttery,R.G and Sugisawa,H. Eds. Bioactive Volatile Compounds from Plants. ACS Symposium Series 525. Amer. Chem. Soc., Washington DC
<u>Musculotropic</u>	1	Wichtl, M. 1984. Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp.
<u>Mutagenic</u>	1	Duke, 1992 *
<u>Mycobactericide</u>	1	Duke, 1992 *
<u>Myorelaxant</u>	8	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
<u>NADH-Oxidase-Inhibitor</u>	1	Duke, 1992 *
<u>Nematicide</u>	10	Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp.
<u>Neuroprotective</u>	1	Duke, 1992 *
<u>Neurotoxic</u>	1	Duke, 1992 *
<u>NF-kB-Inhibitor</u>	3	Duke, 1992 *
<u>NO-Genic</u>	1	Duke, 1992 *
<u>NO-Inhibitor</u>	1	Duke, 1992 *

Activity	Chemical Count	Reference
<u>NO-Synthase-Inhibitor</u>	1	Duke, 1992 *
<u>Nodulation-Signal</u>	1	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
<u>Ornithine-Decarboxylase-Inhibitor</u>	5	Hagerman, A.E. Tannin-Protein Interactions. Phenolic Compounds in Food and Their Effects on Health, Ch.19.
<u>Ozone-Scavenger</u>	1	Duke, 1992 *
<u>P21-Inducer</u>	1	Duke, 1992 *
<u>P450-2B1-Inhibitor</u>	4	Duke, 1992 *
<u>P450-Inducer</u>	3	Duke, 1992 *
<u>Pediculicide</u>	1	Duke, 1992 *
<u>Perfume</u>	1	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
<u>Perfumery</u>	21	Merck 11th Edition
<u>Peristaltic</u>	1	Duke, 1992 *
<u>Pesticide</u>	31	Duke, 1992 *
<u>Phagocytotic</u>	1	Duke, 1992 *
<u>Pheromone</u>	1	Duke, 1992 *
<u>Phospholipase-A2-Inhibitor</u>	1	Somasundaram, S., Sadique, J. 1985. Anti-hemolytic Effect of Flavonoidal Glycosides of Clerodendron inerme: An in vitro Study. Fitoterapia 57(2): 103, 1986.
<u>Photosensitizer</u>	1	Rinzler, C. A. 1990. The Complete Book of Herbs, Spices and Condiments. Facts on File, New York. 199 pp.
<u>Piscicide</u>	2	Duke, 1992 *
<u>PKC-Inhibitor</u>	1	Duke, 1992 *
<u>Polyamine-Synthesis-Inhibitor</u>	1	Duke, 1992 *
<u>Potassium-Sparing</u>	1	Iwu, M.M. 1993. Handbook of African Medicinal Plants. CRC Press, Boca Raton, FL 435 pp.
<u>Progestational</u>	1	Duke, 1992 *

Activity	Chemical Count	Reference
<u>Prooxidant</u>	1	Duke, 1992 *
<u>Prostaglandigenic</u>	1	Duke, 1992 *
<u>Prostaglandin-Inhibitor</u>	1	Duke, 1992 *
<u>Prostaglandin-Synthesis-Inhibitor</u>	1	Duke, 1992 *
<u>Prostatitogenic</u>	1	Duke, 1992 *
<u>Protease-Inhibitor</u>	1	Duke, 1992 *
<u>Protein-Kinase-C-Inhibitor</u>	1	Duke, 1992 *
<u>Protisticide</u>	1	Chemical Express, 7: 285, 1992.
<u>Psychotropic</u>	1	Uchida, U., Ohta, H., Niwa, M., Mori, A., Nonaka, G-i., Nishioka, I., and Zaki, M. 1989. Prolongation of Life Span of Stroke-Prone Spontaneously Hypertensive Rats (SHRSP) Ingesting Persimmon Tannin. <i>Chem. Pharm. Bull.</i> 38(4): 1049-1052, 1990.
<u>PTK-Inhibitor</u>	1	Duke, 1992 *
<u>Quinone-Reductase-Inducer</u>	2	Uda, Y., Price, K. R., Williamson, G., Rhodes, M. J. C. 1997. Induction of the Anticarcinogenic Marker Enzyme, Quinone Reductase, in Murine Hepatoma Cells In Vitro by Flavonoids. <i>Cancer Lett.</i> , 120 (2): 213-216.
<u>Radioprotective</u>	2	Duke, 1992 *
<u>Renoirritant</u>	1	Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. <i>Herbal Medicine - A Guide for Health-care Professionals</i> . The Pharmaceutical Press, London. 296pp.
<u>Rubefacient</u>	1	Martindale's 29th
<u>Secretagogue</u>	1	Duke, 1992 *
<u>Sedative</u>	16	Wagner & Wolff, eds. 1977. <i>New Natural Products</i> (RS164. I56. 176)
<u>Sodium-Sparing</u>	1	Iwu, M.M. 1993. <i>Handbook of African Medicinal Plants</i> . CRC Press, Boca Raton, FL 435 pp.
<u>Spasmogenic</u>	5	Fitoterapia No.59-1984.
<u>Spermicide</u>	1	Duke, 1992 *
<u>Sprout-Inhibitor</u>	1	Duke, J.A.. Personal Communication.

Activity	Chemical Count	Reference
Stomachic	1	Duke, 1992 *
Sunscreen	2	Duke, 1992 *
Surfactant	1	Duke, 1992 *
Teratogenic	1	Duke, 1992 *
Termitifuge	1	Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990.
Testosterone-Hydroxylase-Inducer	1	Duke, 1992 *
Testosterone-Inducer	1	Duke, 1992 *
TNF-alpha-Inhibitor	1	Duke, 1992 *
TOPO-2-Inhibitor	1	Duke, 1992 *
Topoisomerase-I-Inhibitor	1	Santti, R., Makela, S., Strauss, L., Korman, J., Kostian, M. L. 1998. Phytoestrogens: Potential Endocrine Disruptors in Males. <i>Toxicol Ind Health</i> , 14: 223-237.
Topoisomerase-II-Inhibitor	1	Azuma, Y., Onishi, Y., Sato, Y., Kizaki, H. 1995. Effects of Protein Tyrosine Kinase Inhibitors With Different Modes of Action on Topoisomerase Activity and Death of IL-2-Dependent CTLL-2-Cells. <i>J Biochemistry</i> , 118: 312-318.
Tracheorelaxant	2	Duke, 1992 *
Tranquilizer	2	Lawrence Review of Natural Products, Jun-90.
Transdermal	4	Duke, 1992 *
Trichomonicide	7	Duke, 1992 *
Trypanocide	2	Duke, 1992 *
Tumorigenic	1	Jim Duke's personal files.
Tyrosinase-Inhibitor	1	Duke, 1992 *
Urinary-Antiseptic	1	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Uterotonic	1	Duke, 1992 *

Activity	Chemical Count	Reference
<u>Uterotrophic</u>	1	Journal of Medicinal Food 2: 227.1999.
<u>Varroacide</u>	1	Duke, 1992 *
<u>Vasodilator</u>	1	Duke, 1992 *
<u>Vasopressor</u>	2	Duke, 1992 *
<u>VEGF-Inhibitor</u>	1	Duke, 1992 *
<u>Vermicide</u>	1	Madaus, G. 1976. Lehrbuch der Biologischen Hilfsmittel. Vol., 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus.
<u>Vermifuge</u>	1	Duke, 1992 *
<u>Vulnerary</u>	2	Duke, 1992 *
<u>Xanthine-Oxidase-Inhibitor</u>	3	Duke, 1992 *