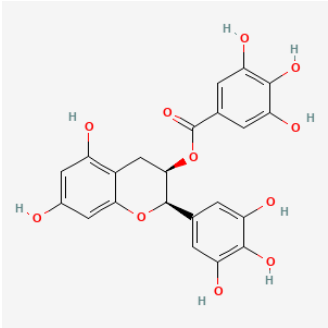
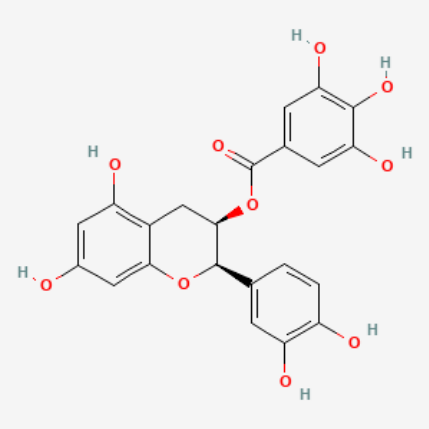
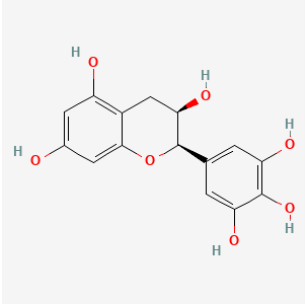
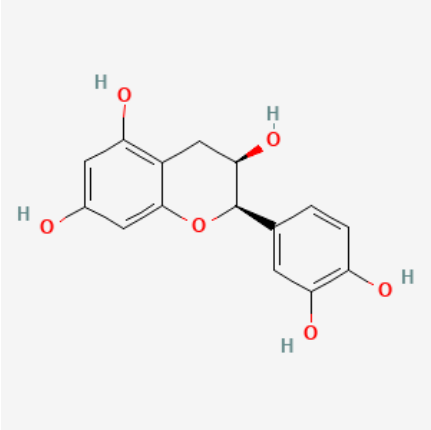
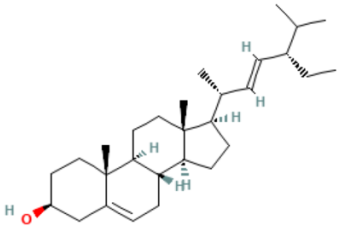
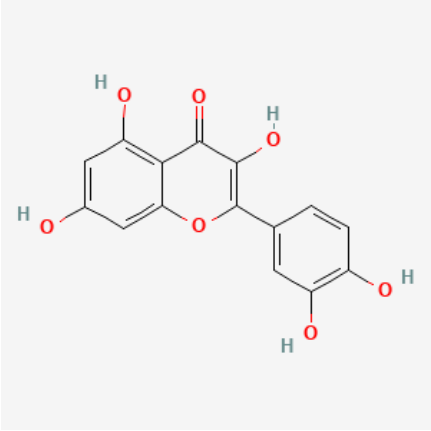
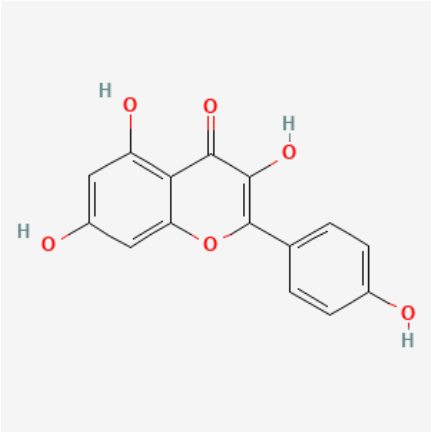
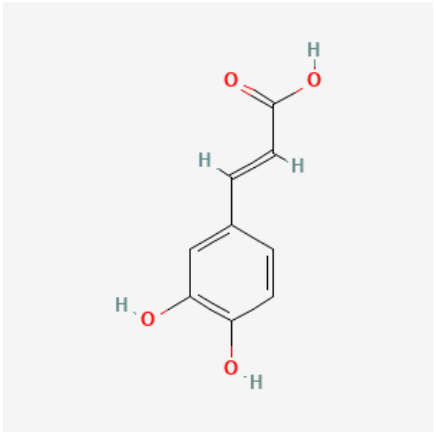
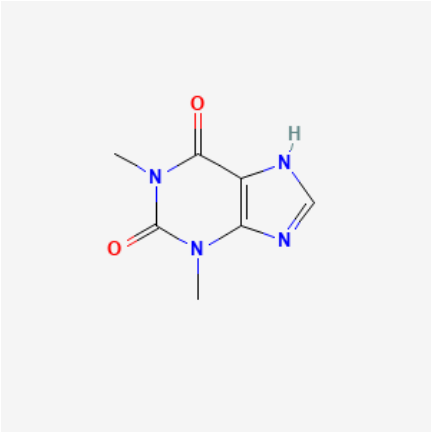
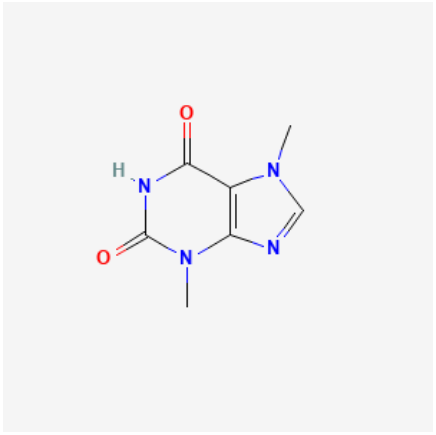
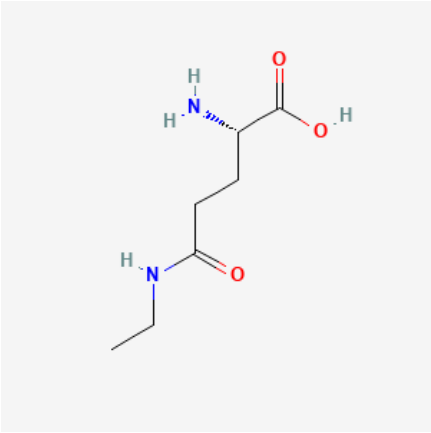
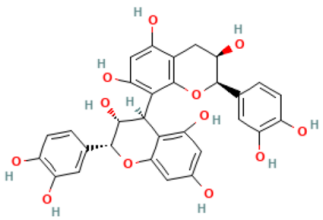
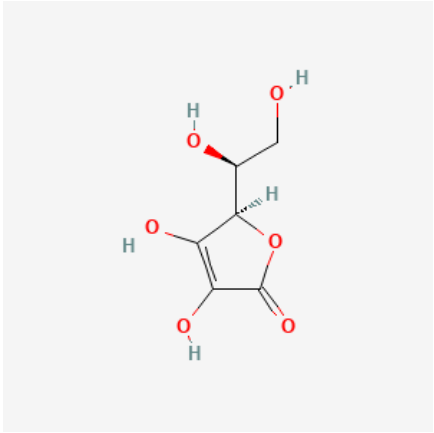
S.NO.	Phytochemical	Structure	Mechanism of action	Reference
1	Epigallocatechin-3-gallate (EGCG)		A powerful antioxidant and anti-cancer agent that inhibits cancer cell proliferation and induces apoptosis	Hu L et al., 2023
2	Epicatechin Gallate (ECG)		Induces apoptosis in cancer cells, and inhibits angiogenesis.	Sánchez-Tena S et al., 2013

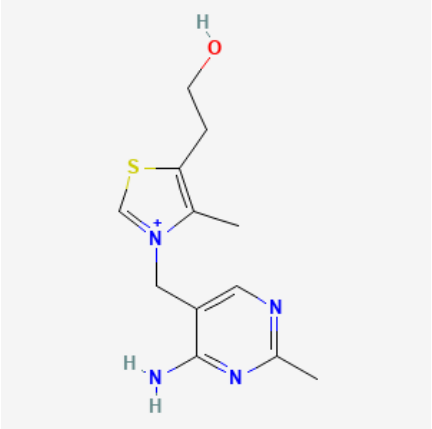
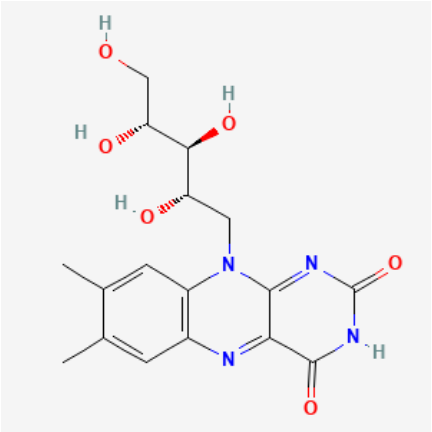
3	Epigallocatechin (EGC)		Antioxidant inhibits cancer cell proliferation.	Vergote D et al., 2002
4	Epicatechin (EC)		EC has an antitumor effect in a murine triple-negative mammary gland tumor model, decreasing tumoral size and volume and increasing survival by 44%	Pérez-Durán J et al., 2023
5	Stigmasterol		Plant metabolite	Duke, 1992

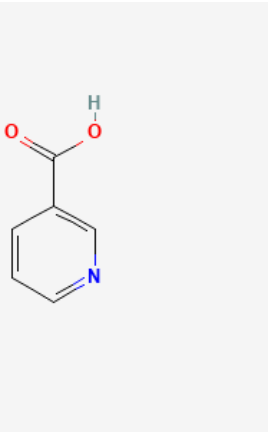
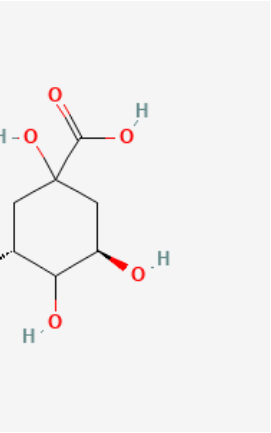
6	Quercetin		An antioxidant with anti-inflammatory and antihistamine effects.	Murakami A. et al., 2008
7	Kaempferol		Known for its anti-cancer and cardioprotective properties.	Luo H. et al., 2010

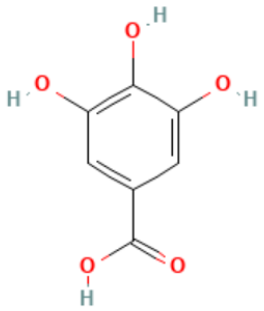
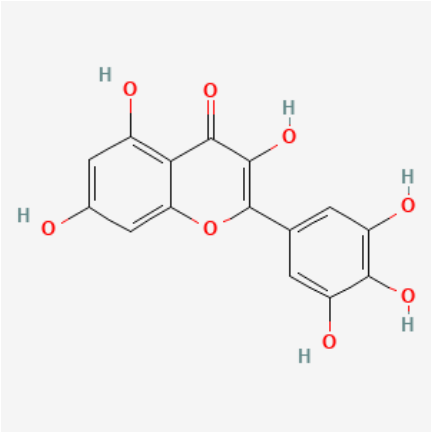
8	Caffeic acid		Through metabolism by caffeine metabolism genotype. Antioxidant and inhibits tumor proliferation	Gregg JR et al., 2023
9	Theophylline		Theophylline down-regulated *SRSF3* expression and switched *p53* from alpha into a beta isoform. theophylline induces cellular apoptosis, senescence, and decreased colony formation	Arab L. et al., 2009

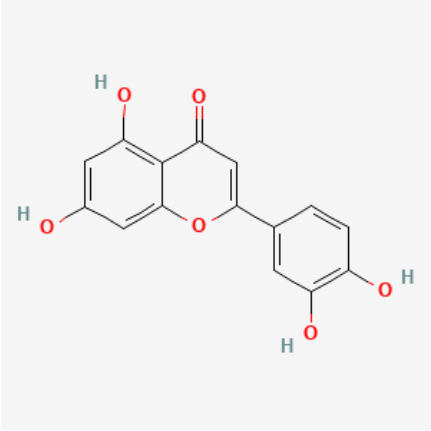
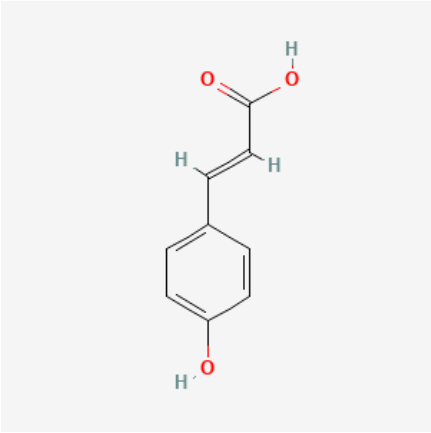
10	Theobromine		Reduced the number of cancerous and precancerous lesions, administration also causes more inhibitory effects on the Ki-67 and Akt/mTOR expression than theanine	Shojaei-Zarghani S et al., 2021
11	L-Theanine		Act as an anticarcinogen through proapoptotic and antiproliferative effects	Fan X et al., 2021

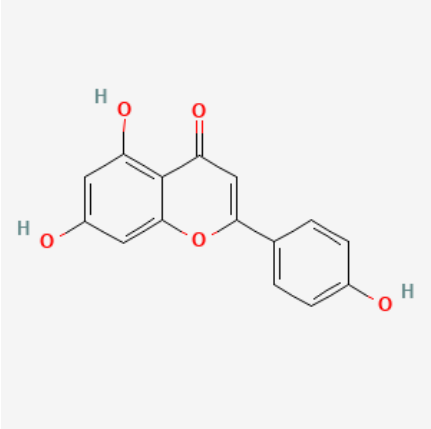
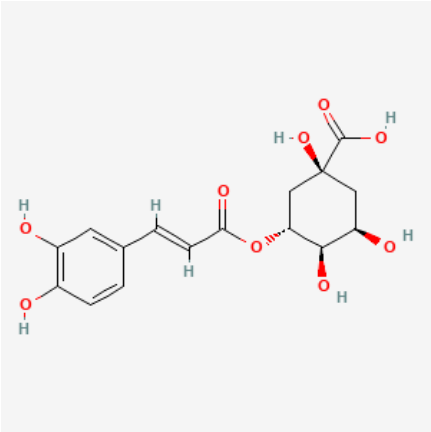
12	Procyanidin B2		It has a role as a metabolite and an antioxidant.	Duke, 1992
13	Vitamin C		Present in green tea but reduced during oxidation. targets many of the mechanisms that cancer cells utilize for their survival and growth	Ngo B et al., 2019

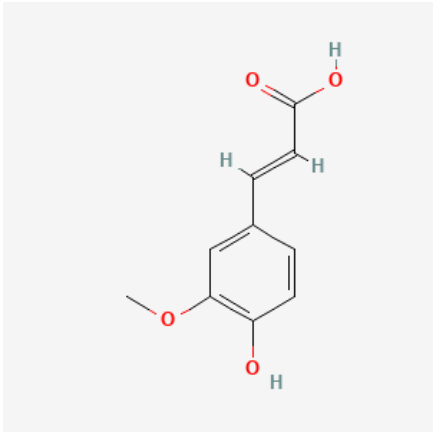
14	B1 (thiamine)		It may exhibit some antitumor effects.	Lu'o'ng KV et al., 2013
15	B2 (riboflavin)		Indirect cancer therapeutic agent that functions in metabolic pathways, oxidative stress modulation, and immune system support	Ben S et al., 2018

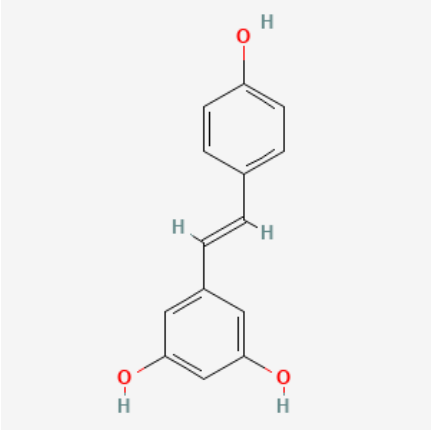
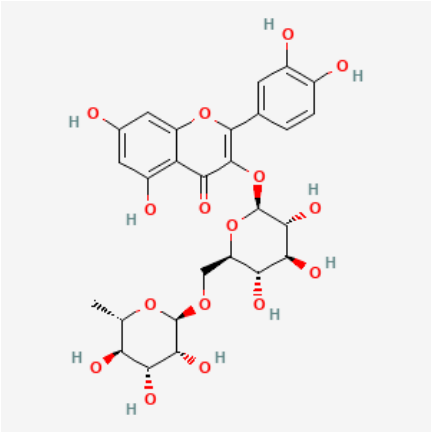
16	B3 (niacin)		Improves mitochondrial metabolism and ameliorates cancer- and chemotherapy-induced cachexia.	Beltrà M et al., 2023
17	Quinic Acid		Including gallic acid, which has antioxidant and antimicrobial properties.	Ahmad S et al., 2023

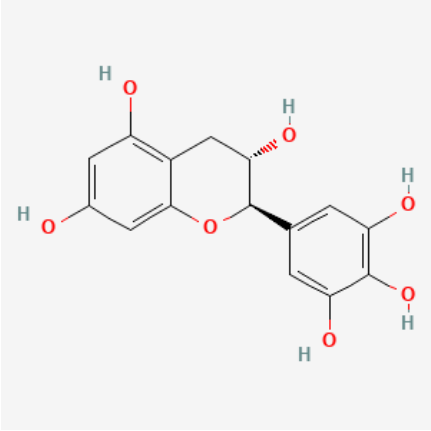
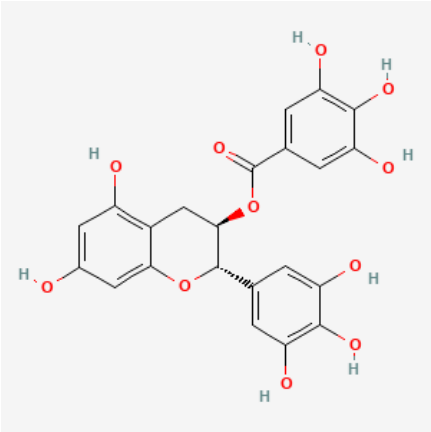
18	Gallic Acid		Antioxidant properties inhibit tumor cell proliferation	You et al., 2010
19	Myricetin		Induces apoptosis in cancer cells, antioxidant activity	Hyun et al., 2016

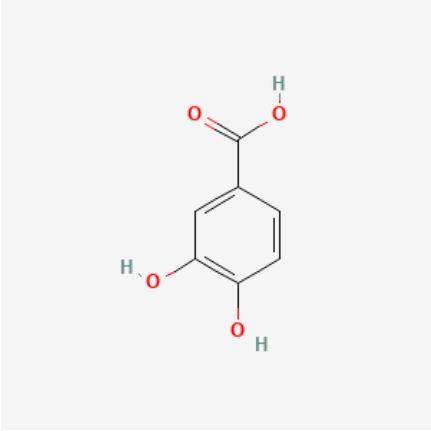
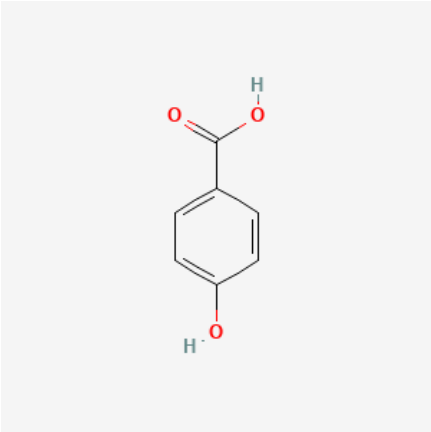
20	Luteolin		Induces cancer cell apoptosis, inhibits angiogenesis	Wang, W., et al., 2005
21	P-coumaric acid		Inhibits cell proliferation and DNA damage	Wang, L. et al., 2022

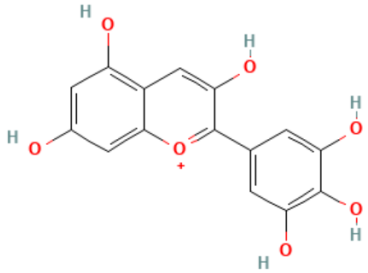
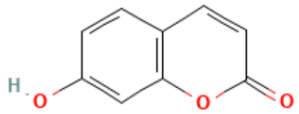
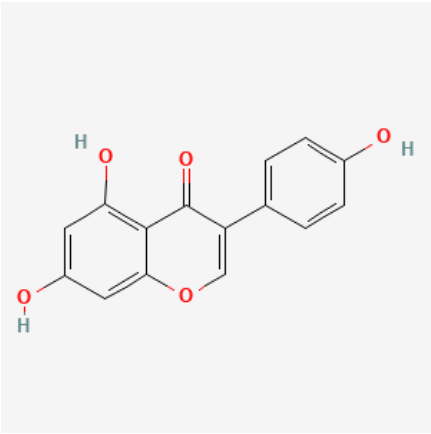
22	Apigenin		Antioxidant properties, suppresses cancer cell growth	Zhao et al., 2017
23	Chlorogenic acid		Antioxidant, inhibits metastasis	Yan,Y. et al., 2020

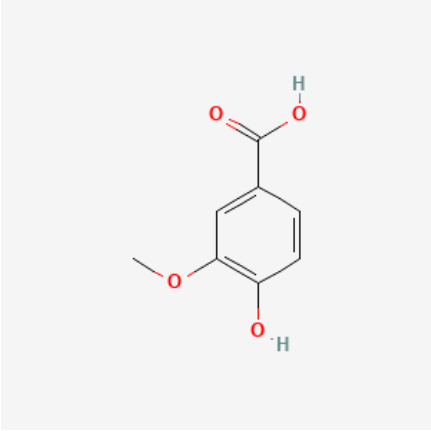
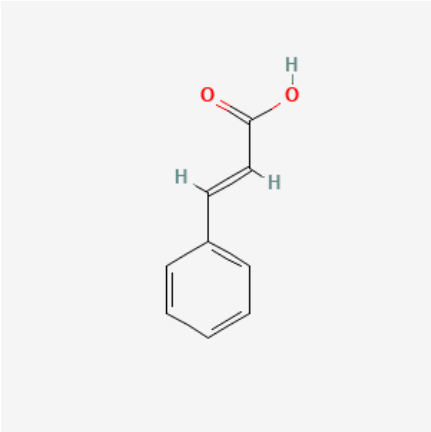
24	Ferulic acid		Suppresses oxidative stress and tumor growth	Srinivasan et al., 2007
25	Catechol		Enhances antioxidant defenses, inhibits cancer cell growth	Zhang et al., 2019

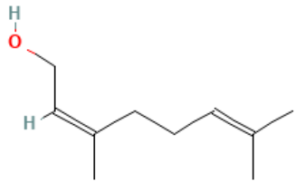
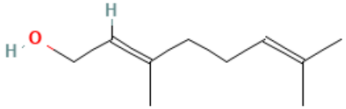
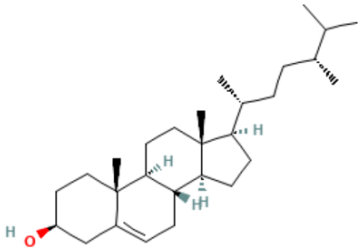
26	Resveratrol		Antioxidant,induces cancer cell apoptosis	Vang et al., 2011
27	Rutin		Suppresses cancer cell growth and oxidative damage	Ahmed et al., 2019

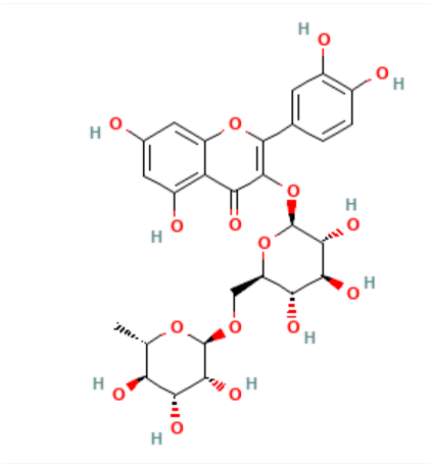
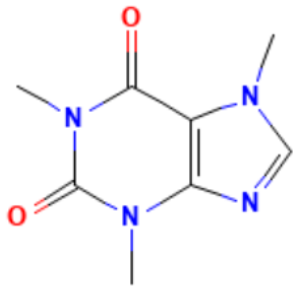
28	Gallocatechin		Antioxidant activity inhibits cancer cell proliferation	Yang et al., 2019
29	Gallocatechin gallate (GCG)		Inhibits cancer cell growth and angiogenesis, antioxidant properties	Yang et al., 2019

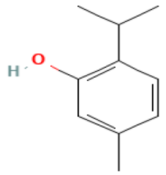
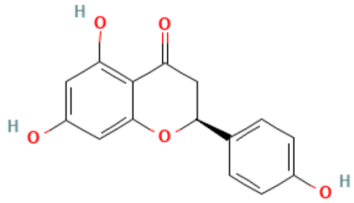
30	3,4-dihydroxybenzoic acid (Protocatechuic acid)		Suppresses tumor growth and acts as an antioxidant.	Lin et al., 2015
31	4-hydroxybenzoic acid		Antioxidant and anti-inflammatory properties and inhibit cancer cell growth.	Lee et al, 2014

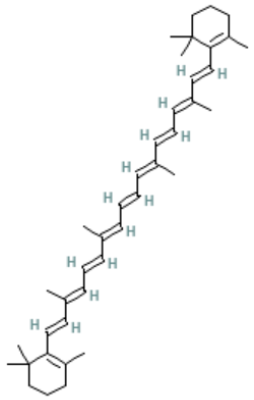
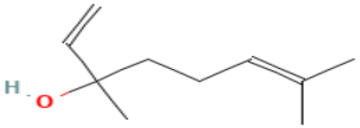
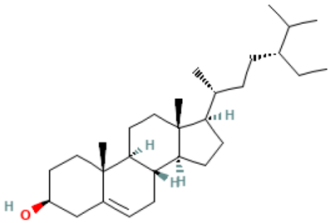
32	Delphinidin		Suppresses cancer cell growth by inducing apoptosis and inhibiting metastasis. It has a role as an antineoplastic agent, a biological pigment, and a plant metabolite.	Thomasset et al., 2014
33	Umbelliferone		It has a role as a fluorescent probe, a plant metabolite, and a food component.	Duke, 1992
34	Genistein (Isoflavones)		Have estrogenic activity and exhibit anticancer properties, particularly in hormone-related cancers	Banerjee et al., 2008

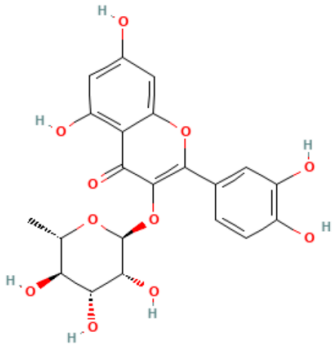
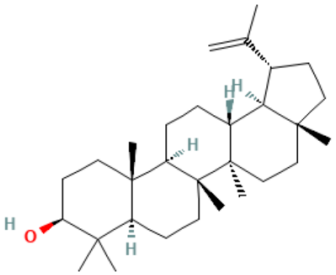
35	Vanillic acid		Antioxidant and anti-inflammatory properties help in inhibiting tumor growth.	Karthikeyan et al., 2016
36	Cinnamic acid		Antitumor activity through inhibition of cancer cell proliferation and induction of apoptosis	Taherian et al., 2019

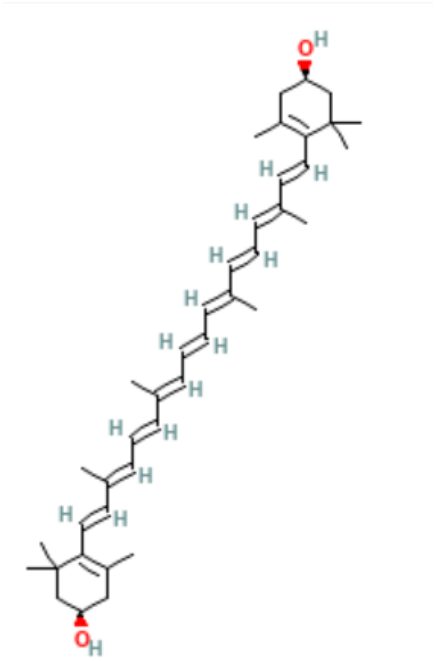
37	Nerol		It has a role as a volatile oil component, a plant metabolite and a fragrance.	Duke,1992
38	Geraniol		It has a role as a fragrance, an allergen, a volatile oil component, and a plant metabolite.	Duke, 1992
39	Campesterol			Duke, 1992

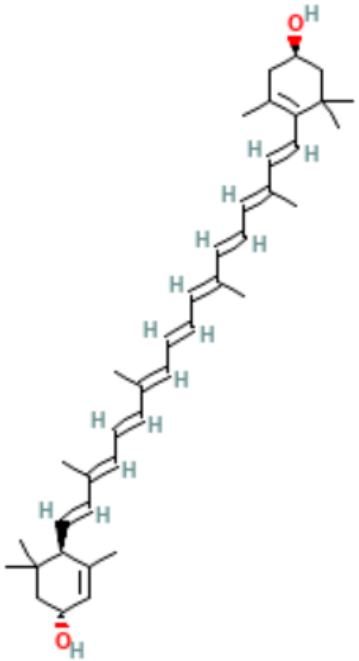
40	Eugenol		It has a role as an allergen, a human blood serum metabolite, a sensitizer, a volatile oil component, a flavoring agent, an EC 1.4.3.4 (monoamine oxidase) inhibitor, a radical scavenger, an antibacterial agent, an antineoplastic agent, an apoptosis inducer, an anesthetic, an analgesic, a voltage-gated sodium channel blocker, an NF-kappaB inhibitor, and an anti-inflammatory agent	Duke, 1992
41	Caffeine		It has roles as a central nervous system stimulant, a psychotropic drug, a diuretic, a food additive, an adjuvant, a plant metabolite, an environmental contaminant, a xenobiotic, a human	Duke, 1992

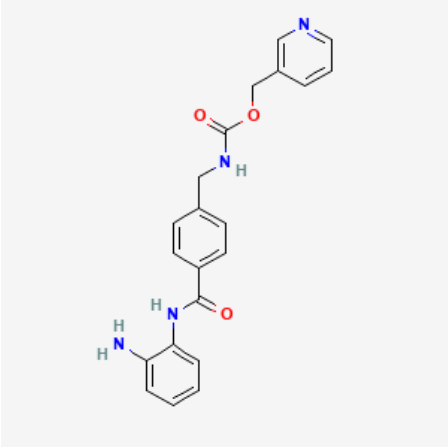
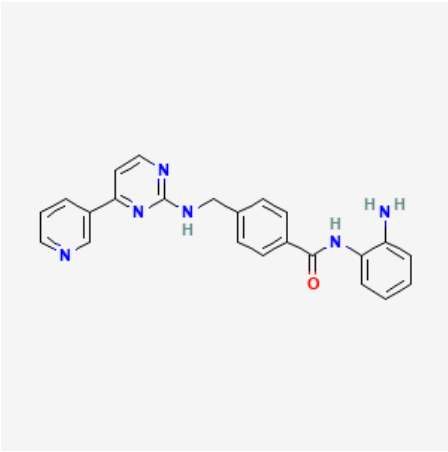
			blood serum metabolite, a mouse metabolite, a geroprotector, and a mutagen.	
42	Thymol		It has been used for its antiseptic, antibacterial, and antifungal actions, and was formerly used as a vermifuge.	Duke, 1992
43	Naringenin		It has a role as an expectorant and a plant metabolite.	Duke, 1992

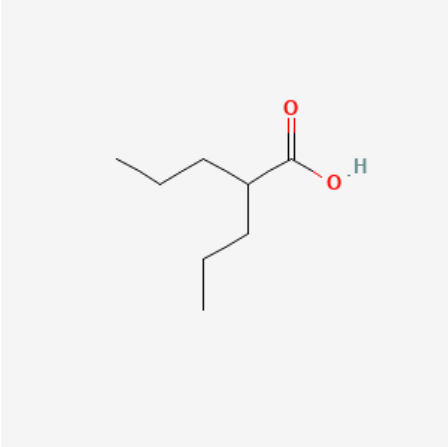
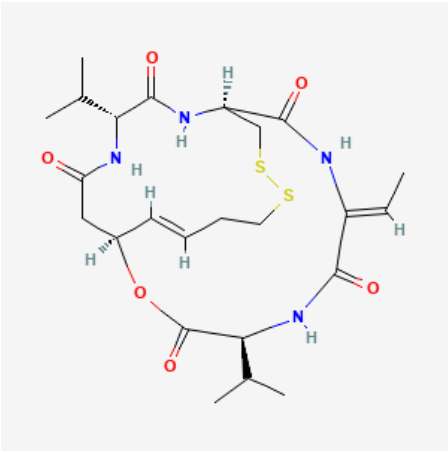
44	Beta-carotene		Antioxidant a plant metabolite	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
45	Linalool		It has a role as a plant metabolite, a volatile oil component, an antimicrobial agent and a fragrance.	Duke, 1992
46	Beta-Sitosterol		It has a role as a sterol methyltransferase inhibitor, an anticholesteremic drug, an antioxidant, and a plant metabolite	Spiller, G. A. 1996

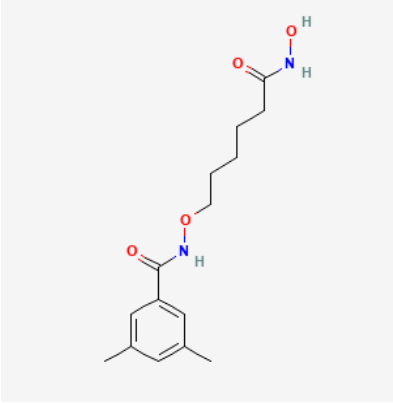
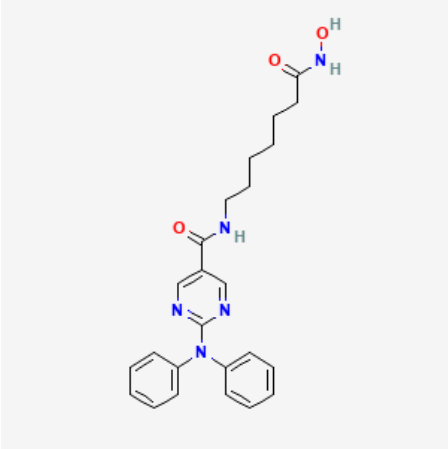
47	Quercitrin		It has a role as an antioxidant, an antileishmanial agent, an EC 1.1.1.184 [carbonyl reductase (NADPH)] inhibitor, an EC 1.1.1.21 (aldehyde reductase) inhibitor, an EC 1.14.18.1 (tyrosinase) inhibitor, and a plant metabolite.	Duke, 1992
48	Lupeol		It has a role as an anti-inflammatory drug and a plant metabolite.	Duke, 1992

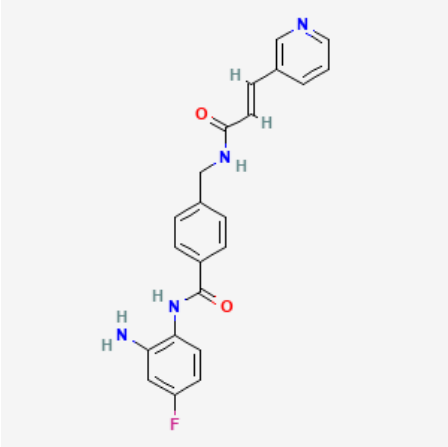
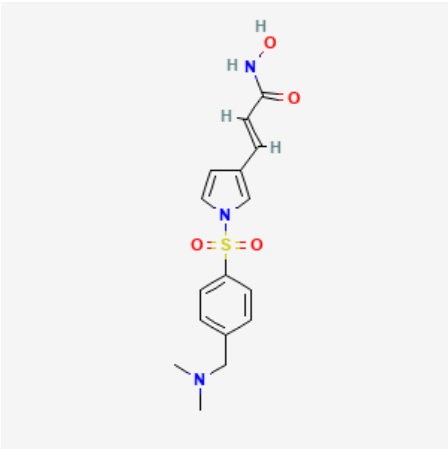
49	Zeaxanthin		It has a role as a bacterial metabolite, a cofactor, and an antioxidant.	Duke, 1992

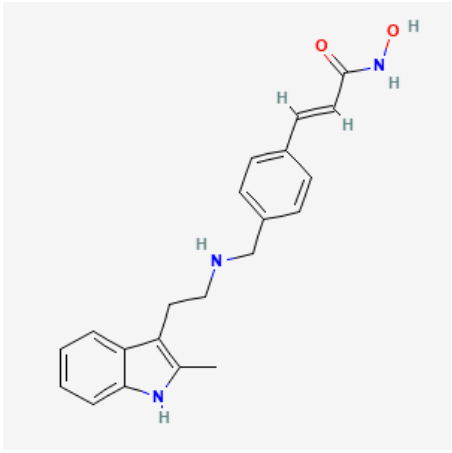
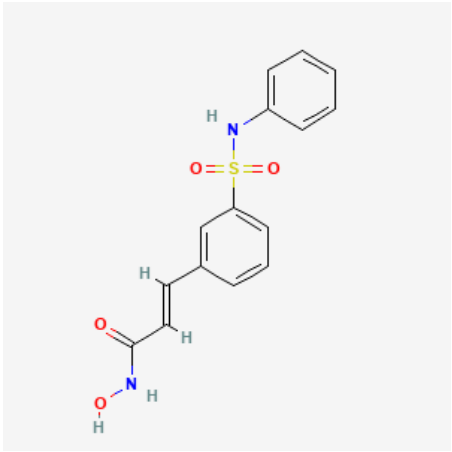
50	Lutein		Plant metabolite	Duke, 1992

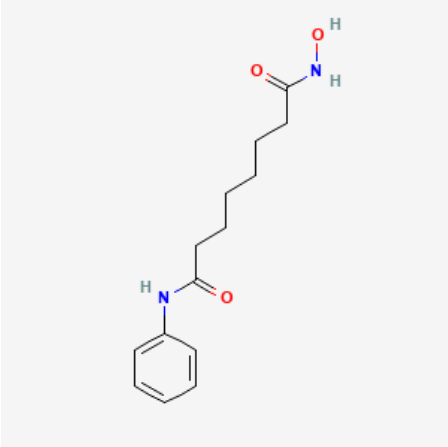
51	Entinostat		Induces BRCA-like synthetic lethality in HR-proficient ovarian cancer with olaparib	Guptan et al., 2021
52	Mocetinostat		Reactivates tumor suppressor genes, potentially restoring normal cell function and inhibiting tumor growth.	Kell, J., 2007

53	Valproic acid		Promotes histone hyperacetylation, reactivates tumor suppressor genes, and boosts sensitivity to treatments like olaparib.	Shan et al., 2012
54	Romidepsin		Inhibits HDAC enzymes, restoring gene expression, and triggering cancer cell arrest and apoptosis.	Bertino et al., 2011

55	N-((6-(hydroxyamino)-6-oxohexyl)oxy)-3,5-dimethylbenzamide		Resensitizes cisplatin-resistant cancer cells.	Marek et al., 2013
56	Ricolinostat		May help prevent or reverse chemotherapy-induced neuropathy, improving paclitaxel dosing in ovarian cancer.	Ali et al., 2020

57	Tucidinostat		It may boost PD-1 blockade in immunotherapy.	Mao et al., 2024
58	Resminostat		Hydroxamic acid-based HDAC inhibitors	Ellerhoff et al., 2016

59	Panobinostat		Inhibits DAC/HDAC proteins, altering gene expression and protein metabolism, with antitumor effects in multiple myeloma	Laubach et al., 2015
60	Belinostat		Prevents acetyl group removal from histones and proteins.	Valiuliene et al., 2015

61	Vorinostat		Induces DNA double-strand breaks in cancer cells, leading to cell death while normal cells can repair the damage.	Lee et al., 2010

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