

**Dr. Duke's Phytochemical and Ethnobotanical Database**

**Chemicals Found in *Agastache rugosa***

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	(-)-CARYOPHYLLENE	Tissue Culture	--	--		Jim Duke's personal files.
0	3-ALLYL-5-6-DIMETHOXY PHENOL	Shoot	--	--		Jim Duke's personal files.
0	3-O-ACETYL-OLEANOLIC ALDEHYDE	Plant	--	--		Jim Duke's personal files.
0	3-O-ACETYL-OLEANOLIC ALDEHYDE	Root	4.4	4.4		Jim Duke's personal files.
0	4-METHOXY-CINNAMIC ALCOHOL	Shoot	--	--		Jim Duke's personal files.
0	4-METHOXYCINNAMALDEHYDE	Shoot	--	--		Jim Duke's personal files.
0	ABIETA-4(18)-8-11-13-TETRAEN-7-ONE	Root	26.6	26.6		Jim Duke's personal files.
16	ACACETIN	Inflorescence	--	--		Jim Duke's personal files.
16	ACACETIN	Leaf	--	--		Jim Duke's personal files.
16	ACACETIN	Shoot	285	285		Jim Duke's personal files.
16	ACACETIN	Root	6.8	6.8		Jim Duke's personal files.
0	AGASTACHIN	Shoot	19	19		Jim Duke's personal files.
0	AGASTACHOSIDE	Shoot	--	--		Jim Duke's personal files.
0	AGASTACHOSIDE	Root	9.2	9.2		Jim Duke's personal files.
0	AGASTANOL	Root	35.5	35.5		Jim Duke's personal files.
3	ALPHA-CADINOL	Shoot	--	--		Jim Duke's personal files.
2	ALPHA-HUMULENE	Shoot	--	--		Jim Duke's personal files.
0	ALPHA-LIMONENE	Tissue Culture	--	--		Jim Duke's personal files.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
28	ALPHA-PINENE	Tissue Culture	--	--		Jim Duke's personal files.
28	ALPHA-PINENE	Essential Oil	--	--		Jim Duke's personal files.
0	ALPHA-YLANGENE	Tissue Culture	--	--		Jim Duke's personal files.
36	ANETHOLE	Essential Oil	20000	20000	-1.4074654870795833	Jim Duke's personal files.
36	ANETHOLE	Tissue Culture	--	--		Jim Duke's personal files.
7	ANISALDEHYDE	Essential Oil	30000	30000	1	Jim Duke's personal files.
7	ANISALDEHYDE	Tissue Culture	--	--		Jim Duke's personal files.
7	ANISALDEHYDE	Shoot	--	--		Jim Duke's personal files.
0	BETA OPLOPENTONE	Shoot	--	--		Jim Duke's personal files.
0	BETA-BOURBONENE	Shoot	--	--		Jim Duke's personal files.
0	BETA-CARYOPHYLLENE	Shoot	--	--		Jim Duke's personal files.
5	BETA-ELEMENE	Tissue Culture	--	--		Jim Duke's personal files.
5	BETA-ELEMENE	Essential Oil	--	--		Jim Duke's personal files.
0	BETA-FARNESENE	Tissue Culture	--	--		Jim Duke's personal files.
0	BETA-HUMULENE	Tissue Culture	--	--		Jim Duke's personal files.
13	BETA-PINENE	Essential Oil	--	--		Jim Duke's personal files.
13	BETA-PINENE	Tissue Culture	--	--		Jim Duke's personal files.
47	BETA-SITOSTEROL	Root	--	--		Jim Duke's personal files.
0	CALAMENE	Tissue Culture	--	--		Jim Duke's personal files.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	CARYOPHYLLA-4(14)-8(15)-DIEN-5-ALPHA-OL	Shoot	--	--		Jim Duke's personal files.
31	CARYOPHYLLENE	Essential Oil	--	--		Jim Duke's personal files.
8	CARYOPHYLLENE-OXIDE	Shoot	--	--		Jim Duke's personal files.
0	CARYOPHYLLENOL-I	Shoot	--	--		Jim Duke's personal files.
0	CARYOPHYLLENOL-II	Shoot	--	--		Jim Duke's personal files.
0	CHAVIBETOL	Shoot	--	--		Jim Duke's personal files.
3	CHAVICOL	Shoot	--	--		Jim Duke's personal files.
0	CIS-CARVEOL	Shoot	--	--		Jim Duke's personal files.
0	CIS-JASMONE	Shoot	--	--		Jim Duke's personal files.
4	COSMOIIN	Inflorescence	--	--		Jim Duke's personal files.
4	COSMOIIN	Leaf	--	--		Jim Duke's personal files.
3	CYNAROSIDE	Leaf	--	--		Jim Duke's personal files.
3	CYNAROSIDE	Inflorescence	--	--		Jim Duke's personal files.
19	D-LIMONENE	Essential Oil	50000	50000	1.1054595196854304	Jim Duke's personal files.
5	DAUCOSTEROL	Root	5.2	5.2	-0.5364384912277044	Jim Duke's personal files.
0	DEHYDRO-AGASTOL	Root	6.4	6.4		Jim Duke's personal files.
9	DELTA-CADINENE	Essential Oil	--	--		Jim Duke's personal files.
0	DIHYDROACTINIDIOLIDE	Shoot	--	--		Jim Duke's personal files.
0	DIOSMETIN-7-O-BETA-D-GLUCOSIDE	Inflorescence	--	--		Jim Duke's personal files.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	DIOSMETIN-7-O-BETA-D-GLUCOSIDE	Leaf	--	--		Jim Duke's personal files.
0	ERYTHRODIOL-3-O-ACETATE	Root	--	--		Jim Duke's personal files.
0	ESSENTIAL OIL	Plant	--	--		Jim Duke's personal files.
12	ESTRAGOLE	Essential Oil	895000	895000	0.7812993994251581	Jim Duke's personal files.
12	ESTRAGOLE	Shoot	--	--		Jim Duke's personal files.
12	ESTRAGOLE	Plant	--	--		Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
12	ESTRAGOLE	Tissue Culture	--	--		Jim Duke's personal files.
76	EUGENOL	Shoot	--	--		Jim Duke's personal files.
5	EUGENOL-METHYL-ETHER	Essential Oil	--	--		Jim Duke's personal files.
5	EUGENOL-METHYL-ETHER	Shoot	--	--		Jim Duke's personal files.
0	GAMMA-CADINENE	Tissue Culture	--	--		Jim Duke's personal files.
2	GERMACRENE-D	Shoot	--	--		Jim Duke's personal files.
0	HEX-1-EN-3-OL ACETATE	Shoot	--	--		Jim Duke's personal files.
2	HUMULENE	Essential Oil	--	--		Jim Duke's personal files.
0	ISO-AGASTACHOSIDE	Shoot	210	210		Jim Duke's personal files.
60	LIMONENE	Essential Oil	--	--		Jim Duke's personal files.
53	LINALOOL	Essential Oil	--	--		Jim Duke's personal files.
53	LINALOOL	Tissue Culture	--	--		Jim Duke's personal files.

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53	LINALOOL	Shoot	--	--		Jim Duke's personal files.
6	MASLINIC-ACID	Root	12.4	12.4		Jim Duke's personal files.
0	OCT-1-EN-3-OL	Essential Oil	--	--		Jim Duke's personal files.
0	OCT-1-EN-3-OL ACETATE	Shoot	--	--		Jim Duke's personal files.
0	OCT-1-EN-3-ONE	Tissue Culture	--	--		Jim Duke's personal files.
0	OCTAN-3-OL	Essential Oil	--	--		Jim Duke's personal files.
0	OCTAN-3-OL	Tissue Culture	--	--		Jim Duke's personal files.
0	OCTAN-3-ONE	Tissue Culture	--	--		Jim Duke's personal files.
64	OLEANOLIC-ACID	Root	10	10	-0.8643260077603725	Jim Duke's personal files.
0	OPLOPANONE	Shoot	--	--		Jim Duke's personal files.
11	P-ANISALDEHYDE	Plant	--	--		Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
2	P-METHOXYCINNAMALDEHYDE	Shoot	--	--		Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
2	PACHYPODOL	Leaf	--	--		Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
0	PARA-CYMENE	Essential Oil	--	--		Jim Duke's personal files.

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0	PARA-CYMENE	Tissue Culture	--	--		Jim Duke's personal files.
0	PARA-METHOXY CINNAMALDEHYDE	Essential Oil	10000	10000		Jim Duke's personal files.
0	PARA-METHOXY CINNAMALDEHYDE	Tissue Culture	--	--		Jim Duke's personal files.
0	PARA-METHOXY CINNAMALDEHYDE	Plant	--	--		Jim Duke's personal files.
57	ROSMARINIC-ACID	Leaf	9000	9000	0.19168161442663484	Jim Duke's personal files.
29	SAFROLE	Essential Oil	--	--		Jim Duke's personal files.
0	SPATHULENOL	Shoot	--	--		Jim Duke's personal files.
0	TILIANIN	Leaf	--	--		Jim Duke's personal files.
0	TILIANIN	Root	84	84		Jim Duke's personal files.
0	TILIANIN	Inflorescence	--	--		Jim Duke's personal files.
0	TILIANINE	Shoot	46	46		Jim Duke's personal files.
1	TRANS-CARVEOL	Shoot	--	--		Jim Duke's personal files.
0	TRANS-JASMONE	Shoot	--	--		Jim Duke's personal files.