

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Melilotus officinalis*

| Activities Count | Chemical                   | Plant Part | Low PPM  | High PPM | StdDev              | Reference Citation  |
|------------------|----------------------------|------------|----------|----------|---------------------|---|
| 24               | VANILLIC-ACID              | Shoot      |          |          |                     | --  |
| 6                | SYRINGIC-ACID              | Shoot      |          |          |                     | --  |
| 0                | SOYASAPONIN-I              | Root       |          | 200.0    | -0.6403734846871075 | --  |
| 0                | SOYASAPOGENOL-E            | Shoot      |          | 13.0     |                     | --  |
| 0                | SOYASAPOGENOL-B            | Shoot      |          | 250.0    |                     | --  |
| 9                | SINAPIC-ACID               | Shoot      |          |          |                     | --  |
| 5                | SAPONINS                   | Leaf       |          |          |                     | Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp. |
| 0                | SAPOGENINS                 | Leaf       |          |          |                     | Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp. |
| 34               | SALICYLIC-ACID             | Shoot      |          |          |                     | --  |
| 34               | SALICYLIC-ACID             | Plant      |          |          |                     | Pharmazie, 46: 156, 1991.   |
| 176              | QUERCETIN                  | Flower     |          |          |                     | --  |
| 176              | QUERCETIN                  | Leaf       |          |          |                     | Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp. |
| 43               | PROTocatechuic-ACID        | Shoot      |          |          |                     | --  |
| 1                | PROTocatechualdehydE       | Plant      |          |          |                     | Pharmazie, 46: 156, 1991.   |
| 1                | PROTocatechualdehydE       | Shoot      |          | 50.0     |                     | --  |
| 0                | PROTEIN                    | Seed       | 128000.0 | 416000.0 | 1.6207983387884666  | CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses                         |
| 0                | P-HYDROXYPHENYLlACTIC-ACID | Shoot      |          |          |                     | --  |
| 0                | P-HYDROXYPHENYLAcETIC-ACID | Shoot      |          |          |                     | --  |
| 25               | P-COUMARIC-ACID            | Shoot      |          |          |                     | --  |
| 25               | P-COUMARIC-ACID            | Plant      |          |          |                     | Pharmazie, 46: 156, 1991.   |

| Activities Count | Chemical             | Plant Part    | Low PPM | High PPM | StdDev              | Reference Citation   |
|------------------|----------------------|---------------|---------|----------|---------------------|--|
| 64               | OLEANOLIC-ACID       | Leaf          |         |          |                     | Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.  |
| 4                | O-COUMARIC-ACID      | Shoot         |         |          |                     | --   |
| 4                | O-COUMARIC-ACID      | Plant         |         |          |                     | Pharmazie, 46: 156, 1991.  |
| 34               | MYRICETIN            | Flower        |         |          |                     | --   |
| 0                | MELILOTOSIDE         | Leaf          |         |          |                     | Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.  |
| 1                | MELILOTIN            | Leaf          |         |          |                     | Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.  |
| 0                | MELILOTIGENIN        | Inflorescence |         | 62.5     |                     | --   |
| 0                | MELILOTIC-ACID-ESTER | Plant         |         |          |                     | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| 1                | MELILOTIC-ACID       | Shoot         |         |          |                     | --   |
| 1                | MELILOTIC-ACID       | Plant         |         |          |                     | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.                             |
| 13               | MEDICARPIN           | Leaf          |         |          |                     | --   |
| 75               | KAEMPFEROL           | Leaf          |         |          |                     | Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.  |
| 75               | KAEMPFEROL           | Flower        |         |          |                     | --   |
| 75               | KAEMPFEROL           | Shoot         |         | 12.5     | -0.7612766674260454 | --   |
| 0                | HYDROCOUMARIN        | Plant         |         |          |                     | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.                             |

| Activities Count | Chemical                       | Plant Part | Low PPM | High PPM | StdDev               | Reference Citation   |
|------------------|--------------------------------|------------|---------|----------|----------------------|--|
| 8                | GENTISIC-ACID                  | Shoot      |         |          |                      | --   |
| 62               | GALLIC-ACID                    | Shoot      |         |          |                      | --   |
| 0                | GALACTOMANNAN                  | Seed       |         |          |                      | --   |
| 61               | FERULIC-ACID                   | Shoot      |         |          |                      | --   |
| 61               | FERULIC-ACID                   | Plant      |         |          |                      | Pharmazie, 46: 156, 1991.  |
| 0                | FAT                            | Seed       | 19000.0 | 83000.0  | -0.9607006829596275  | --   |
| 0                | EO                             | Flower     |         | 130.0    | -0.41899431244054014 | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes. |
| 7                | DIOSGENIN                      | Seed       |         | 1000.0   | -0.7071067811865476  | --   |
| 0                | DEHYDRO-SOYASAPONIN-I          | Root       |         | 9.0      |                      | --   |
| 57               | COUMARIN                       | Plant      |         | 2000.0   | -0.19906863301293415 | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes. |
| 57               | COUMARIN                       | Flower     |         |          |                      | --   |
| 57               | COUMARIN                       | Stem       |         |          |                      | --   |
| 57               | COUMARIN                       | Shoot      | 500.0   | 5400.0   | 1.0                  | --   |
| 57               | COUMARIN                       | Leaf       |         |          |                      | --   |
| 0                | COUMARIC-ACID                  | Plant      |         |          |                      | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes. |
| 102              | CAFFEIC-ACID                   | Plant      |         |          |                      | Pharmazie, 46: 156, 1991.  |
| 102              | CAFFEIC-ACID                   | Shoot      |         |          |                      | --   |
| 0                | AZUKISAPONIN-V                 | Plant      |         |          |                      | --   |
| 0                | AZUKISAPONIN-V                 | Shoot      |         |          |                      | --   |
| 0                | ACETYLSOYASAPONIN-I            | Root       |         | 9.0      |                      | --   |
| 0                | 4-HYDROXY-BENZOIC-ACID         | Shoot      |         |          |                      | --   |
| 0                | 3,4-DIHYDROXY-BENZOIC-ALDEHYDE | Plant      |         |          |                      | Pharmazie, 46: 156, 1991.  |