

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Armoracia rusticana*

| Activities Count | Chemical | Plant Part | Low PPM | High PPM | StdDev | Reference Citation |
|------------------|-----------------|------------|---------|----------|-----------------------|--|
| 112 | ASCORBIC-ACID | Root | 1800.0 | 10000.0 | 5.070471286124204 | -- |
| 112 | ASCORBIC-ACID | Plant | 1220.0 | 18200.0 | 3.6789306859570874 | -- |
| 15 | RIBOFLAVIN | Root | 4.0 | 20.0 | 3.485161664486578 | -- |
| 65 | MAGNESIUM | Root | 1624.0 | 9020.0 | 3.436573672307347 | -- |
| 14 | SULFUR | Root | 1800.0 | 10000.0 | 2.1484129636070275 | ACTA AGRIC SCAND SUPPL 22: 1980 |
| 2 | CAMPESTEROL | Root | | 200.0 | 1.2834996430471919 | Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.) |
| 39 | NIACIN | Root | 16.0 | 90.0 | 1.1523682511680913 | -- |
| 14 | POTASSIUM | Root | 5400.0 | 30000.0 | 1.0413262881316638 | -- |
| 4 | PHOSPHORUS | Root | 1278.0 | 7100.0 | 0.6294359439199063 | -- |
| 53 | BETA-CAROTENE | Root | 27.0 | 150.0 | 0.5227136521125912 | -- |
| 24 | VANILLIC-ACID | Root | | 45.0 | 0.4683014551040585 | -- |
| 7 | CHLORINE | Root | 185.0 | 745.0 | 0.3641382774206427 | Wealth of India. |
| 28 | CALCIUM | Root | 1800.0 | 10000.0 | 0.28443978784453666 | -- |
| 24 | CHROMIUM | Root | 0.6 | 3.5 | 0.13765284526356406 | -- |
| 15 | FIBER | Root | 14000.0 | 94000.0 | 0.130764747590634 | CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses |
| 4 | BORON | Root | 6.0 | 27.0 | 0.10907004695750487 | ACTA AGRIC SCAND SUPPL 22: 1980 |
| 1 | SODIUM | Root | 216.0 | 1200.0 | 0.045965512774069996 | -- |
| 2 | PHYTOSTEROLS | Root | | 910.0 | 0.014453690337214282 | Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.) |
| 112 | ASCORBIC-ACID | Leaf | 2440.0 | 4560.0 | -0.020810203280628586 | -- |
| 2 | ARSENIC | Root | 0.01 | 0.04 | -0.20577574015712302 | ACTA AGRIC SCAND SUPPL 22: 1980 |
| 47 | BETA-SITOSTEROL | Root | | 710.0 | -0.25867676228885333 | Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.) |

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|------------------|---------------------------|------------|---------|----------|----------------------|--|
| 5 | ALUMINUM | Root | 4.0 | 30.0 | -0.2963835040806538 | ACTA AGRIC SCAND SUPPL 22: 1980 |
| 12 | COPPER | Root | 1.0 | 9.0 | -0.30116857246091955 | -- |
| 31 | THIAMIN | Root | 0.0 | 3.0 | -0.32687193108858614 | CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses |
| 4 | SILICON | Root | 0.4 | 2.0 | -0.33371737669722845 | -- |
| 3 | CADMIUM | Root | 0.08 | 0.5 | -0.36034786075591185 | ACTA AGRIC SCAND SUPPL 22: 1980 |
| 5 | STARCH | Root | 39600.0 | 220000.0 | -0.40048460622279153 | -- |
| 6 | IRON | Root | 1.4 | 8.0 | -0.4300308811451584 | -- |
| 14 | MANGANESE | Root | 1.5 | 8.2 | -0.44795773578567305 | -- |
| 2 | MOLYBDENUM | Root | | 0.1 | -0.46089530570591497 | ACTA AGRIC SCAND SUPPL 22: 1980 |
| 3 | NICKEL | Root | 0.2 | 1.2 | -0.495065007546234 | ACTA AGRIC SCAND SUPPL 22: 1980 |
| 1 | MERCURY | Root | | 0.001 | -0.508569995990937 | ACTA AGRIC SCAND SUPPL 22: 1980 |
| 7 | SALICYLATES | Root | 1.0 | 2.0 | -0.6930213679572391 | -- |
| 12 | STIGMASTEROL | Root | | 0.0 | -0.8132428087578462 | Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.) |
| 77 | ZINC | Root | 0.5 | 2.9 | -0.9319328403212439 | -- |
| 24 | PECTIN | Root | | | | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| 1 | 4-PENTENYL-ISOTHIOCYANATE | Root | | | | Wealth of India. |
| 8 | GENTISIC-ACID | Root | | 15.0 | | -- |
| 9 | SINAPIC-ACID | Plant | | | | -- |
| 13 | P-HYDROXY-BENZOIC-ACID | Root | | 14.0 | | -- |
| 75 | KAEMPFEROL | Root | | 6.0 | | -- |
| 8 | FRUCTOSE | Root | | | | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |

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|------------------|----------------------|------------|---------|----------|--------|--|
| 60 | SELENIUM | Root | | | | -- |
| 14 | ARGININE | Root | | | | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| 1 | GLUCONAPIN | Plant | | | | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| 60 | LIMONENE | Plant | | | | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| 4 | RUTOSIDE | Leaf | | | | -- |
| 1 | AMYLASE | Root | | | | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| 1 | GLUCOIBERIN | Plant | | | | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| 2 | COBALT | Root | | | | -- |
| 2 | TRIFOLIN | Shoot | | | | -- |
| 1 | GLUCOBRASSICANAPIN | Plant | | | | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| 3 | RAPHANIN | Plant | | | | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| 16 | ALLYL-ISOTHIOCYANATE | Root | 400.0 | 2592.0 | | -- |

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|------------------|-----------------------------|------------|---------|----------|--------|--|
| 102 | CAFFEIC-ACID | Plant | | | | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| 1 | ETHYL-ISOTHIOCYANATE | Root | | | | Wealth of India. |
| 176 | QUERCETIN | Leaf | | | | Abstract (See species file) |
| 32 | AESCULETIN | Plant | | | | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| 35 | TANNIN | Plant | | | | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| 1 | 3-BUTENYL-ISOTHIOCYANATE | Root | | | | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| 75 | KAEMPFEROL | Leaf | | | | Abstract (See species file) |
| 2 | ASPARAGINE | Root | | | | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| 1 | PHENYLPROPYL-ISOTHIOCYANATE | Root | | | | Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952. |
| 7 | ALLYL-SULFIDE | Root | | | | Wealth of India. |
| 7 | GLUCOSE | Root | | | | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| 7 | SINIGRIN | Root | | 3000.0 | | -- |