

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in Terminalia bellirica

| Activities Count | Chemical                                | Plant Part | Low PPM | High PPM | StdDev              | Reference Citation  |
|------------------|---|------------|---------|----------|---------------------|---|
| 0                | 3,6-DIGALLOYLGLUCOSE                    | Fruit      |         |          |                     | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.  |
| 0                | 7-HYDROXY-3',4'-(METHYLENEDIOXY)-FLAVAN | Pericarp   |         |          |                     | Valsaraj, R., Pushpangadan, P., Smitt, U. W., Adeersen, A., Christensen, S. B., Sittie, A., Nyman, U., Nielsen, C., Oslen, C. E. 1997. New Anti-HIV-1, Antimalarial, and Antifungal Compounds from Terminalia bellirica. J. Nat. Prod. 60 7: 739-742. |
| 0                | ANOLIGAN-B                              | Pericarp   |         |          |                     | Valsaraj, R., Pushpangadan, P., Smitt, U. W., Adeersen, A., Christensen, S. B., Sittie, A., Nyman, U., Nielsen, C., Oslen, C. E. 1997. New Anti-HIV-1, Antimalarial, and Antifungal Compounds from Terminalia bellirica. J. Nat. Prod. 60 7: 739-742. |
| 0                | ARJUNGENIN                              | Stem Bark  |         |          |                     | --  |
| 0                | ARJUNGLUCOSIDE I                        | Stem Bark  |         | 166.6    |                     | Nandy, A. K., Podder, G., Sahu, N. P., Mahato, S. B. 1989. Triterpenoids and Their Glucosides from Terminalia bellirica. Phytochemistry 28 10:2769-2772.  |
| 0                | ASH                                     | Leaf       | 49000.0 | 80000.0  | -0.6845191217694889 | --  |
| 0                | BELLERIC ACID                           | Stem Bark  |         |          |                     | --  |
| 0                | BELLERICAGENIN A                        | Stem Bark  |         | 15.0     |                     | Mahato, S. B., Nandy, A. K., Kundu, A. P. 1992. Pentacyclic Triterpenoid Sapogenols and Their Glycosides from Terminalia bellirica. Tetrahedron 48 12: 2488-2494.   |
| 0                | BELLERICAGENIN B                        | Stem Bark  |         | 200.0    |                     | Mahato, S. B., Nandy, A. K., Kundu, A. P. 1992. Pentacyclic Triterpenoid Sapogenols and Their Glycosides from Terminalia bellirica. Tetrahedron 48 12: 2488-2494.   |
| 0                | BELLERICANIN                            | Fruit      |         |          |                     | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.  |

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|------------------|------------------|------------|---------|----------|---------------------|---|
| 0                | BELLERICASIDE A  | Stem Bark  |         | 200.0    |                     | Mahato, S. B., Nandy, A. K., Kundu, A. P. 1992. Pentacyclic Triterpenoid Sapogenols and Their Glycosides from Terminalia bellerica. Tetrahedron 48 12: 2488-2494. |
| 0                | BELLERICASIDE B  | Stem Bark  |         | 150.0    |                     | Mahato, S. B., Nandy, A. K., Kundu, A. P. 1992. Pentacyclic Triterpenoid Sapogenols and Their Glycosides from Terminalia bellerica. Tetrahedron 48 12: 2488-2494. |
| 0                | BELLERICOSIDE    | Stem Bark  |         | 100.0    |                     | Nandy, A. K., Podder, G., Sahu, N. P., Mahato, S. B. 1989. Triterpenoids and Their Glucosides from Terminalia bellerica. Phytochemistry 28 10:2769-2772.          |
| 0                | BETA-GLUCOGALLIN | Fruit      |         |          |                     | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.  |
| 47               | BETA-SITOSTEROL  | Fruit      |         |          |                     | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.  |
| 28               | CALCIUM          | Leaf       |         | 20800.0  | 0.16144588299166054 | CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses   |
| 0                | CARBOHYDRATES    | Leaf       |         | 787000.0 | 1.3929031844789515  | CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses   |
| 0                | CHEBULIC-ACID    | Fruit      |         |          |                     | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.  |
| 6                | CHEBULINIC-ACID  | Fruit      |         |          |                     | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.  |
| 13               | CORILAGIN        | Fruit      |         |          |                     | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.  |

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|------------------|-------------------|------------|----------|----------|----------------------|---|
| 0                | DOTRIACONTAN-2-OL | Fruit      |          |          |                      | Ali, M. 1992. Chemical Examination of Fruits of Terminalia belerica Roxb. Orient. J. Chem. 8 3: 255-256.  |
| 51               | ELLAGIC-ACID      | Wood       |          |          |                      | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.  |
| 51               | ELLAGIC-ACID      | Leaf       |          |          |                      | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.  |
| 51               | ELLAGIC-ACID      | Fruit      |          |          |                      | --  |
| 51               | ELLAGIC-ACID      | Bark       |          |          |                      | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.  |
| 5                | ETHYL-GALLATE     | Fruit      |          |          |                      | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.  |
| 0                | FAT               | Seed       | 250000.0 | 700000.0 | 2.2892590174415544   | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.  |
| 0                | FAT               | Leaf       |          | 47000.0  | -0.18854946591393063 | CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses   |
| 15               | FIBER             | Leaf       | 74000.0  | 186000.0 | 0.3025387654482874   | --  |
| 2                | FRIEDELIN         | Seed       |          |          |                      | Singh, P., Sharma, S. 1997. Triterpenoid Constituents of the Seeds of Diospyros melanoxylon, Tecomella undulata and Terminalia bellirica. J. Indian Chem. Soc. 74 6: 504-505. |
| 8                | FRUCTOSE          | Seed       |          |          |                      | Singh, P., Sharma, S. 1997. Triterpenoid Constituents of the Seeds of Diospyros melanoxylon, Tecomella undulata and Terminalia bellirica. J. Indian Chem. Soc. 74 6: 504-505. |

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|------------------|---|------------|---------|----------|-------------------|---|
| 8                | FRUCTOSE  | Fruit      |         |          |                   | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.  |
| 1                | GALACTOSE   | Seed       |         |          |                   | Singh, P., Sharma, S. 1997. Triterpenoid Constituents of the Seeds of Diospyros melanoxylon, Tecomella undulata and Terminalia bellirica. J. Indian Chem. Soc. 74 6: 504-505. |
| 1                | GALACTOSE   | Fruit      |         |          |                   | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.  |
| 62               | GALLIC-ACID                                       | Fruit      |         |          |                   | --  |
| 7                | GLUCOSE   | Fruit      |         |          |                   | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.  |
| 7                | GLUCOSE   | Seed       |         |          |                   | Singh, P., Sharma, S. 1997. Triterpenoid Constituents of the Seeds of Diospyros melanoxylon, Tecomella undulata and Terminalia bellirica. J. Indian Chem. Soc. 74 6: 504-505. |
| 0                | HENTRIACONTAN-16-ONE                              | Stem Bark  |         |          |                   | Bajpai, N., Tiwari, J. S. 1994. A Note on the Phytochemical Investigation of Terminalia Genus. J. Indian Chem. Soc. 71 10: 643.   |
| 0                | HEXAHYDROXY-DIPHENACYL-HEPTAHYDROXY-DIPHENACYLATE | Fruit      |         |          |                   | Ali, M., Bhutani, K. K. 1991. Occurrence of Hexahydroxydiphenic Acid Ester in Terminalia belerica Fruits. Indian J. Nat. Prod. 7 1: 16-17.                                    |
| 27               | LINOLEIC-ACID                                     | Seed       | 72475.0 | 202930.0 | 0.820890770924275 | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.  |
| 18               | MANNITOL  | Fruit      |         |          |                   | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.  |

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|------------------|--------------------|------------|----------|----------|----------------------|---|
| 3                | MANNOSE            | Seed       |          |          |                      | Singh, P., Sharma, S. 1997. Triterpenoid Constituents of the Seeds of Diospyros melanoxylon, Tecomella undulata and Terminalia bellirica. J. Indian Chem. Soc. 74 6: 504-505. |
| 0                | N-TETRATRIACONTANE | Fruit      |          |          |                      | Ali, M. 1992. Chemical Examination of Fruits of Terminalia belerica Roxb. Orient. J. Chem. 8 3: 255-256.  |
| 0                | N-TRITRIACONTANE   | Fruit      |          |          |                      | Ali, M. 1992. Chemical Examination of Fruits of Terminalia belerica Roxb. Orient. J. Chem. 8 3: 255-256.  |
| 18               | OLEIC-ACID         | Seed       | 108025.0 | 301470.0 | 1.4991601957510154   | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.  |
| 9                | OXALIC-ACID        | Fruit      |          |          |                      | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.  |
| 9                | OXALIC-ACID        | Bark       |          |          |                      | Bharadwaj, K., Chandra, V. 1983. Comparative Incidence of Calcium Oxalate as a Source of Oxalic Acid in Barks of Seven Species of Terminalia. Biol. Mem. 8 1/2: 54-62.        |
| 13               | PALMITIC-ACID      | Seed       | 29500.0  | 82600.0  | 1.0047049642797696   | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.  |
| 4                | PHOSPHORUS         | Leaf       |          | 2700.0   | -0.41791805519896574 | CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses   |
| 2                | PHYLLEMBLIN        | Fruit      |          |          |                      | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.  |
| 0                | PROTEIN            | Seed       |          | 409000.0 | 1.5585297136421843   | CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses   |
| 0                | PROTEIN            | Leaf       | 86000.0  | 171180.0 | -0.40567315920702685 | --  |

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|------------------|--------------|------------|----------|----------|---------------------|---|
| 0                | RHAMNOSE     | Fruit      |          |          |                     | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.  |
| 0                | SAPONIN      | Fruit      |          |          |                     | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.  |
| 5                | STARCH       | Leaf       | 99800.0  | 127000.0 | 2.4401501282208553  | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.  |
| 8                | STEARIC-ACID | Seed       | 40000.0  | 112000.0 | 1.8646296411916774  | --  |
| 14               | SUCROSE      | Seed       |          |          |                     | Singh, P., Sharma, S. 1997. Triterpenoid Constituents of the Seeds of Diospyros melanoxylon, Tecomella undulata and Terminalia bellirica. J. Indian Chem. Soc. 74 6: 504-505.   |
| 0                | SUGARS       | Leaf       | 38400.0  | 53500.0  | -0.9496931479933499 | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.  |
| 35               | TANNIN       | Fruit      | 170000.0 | 214000.0 | 1.152911794404943   | --  |
| 35               | TANNIN       | Bark       | 14000.0  | 70000.0  | -0.6218356919104978 | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.  |
| 2                | TERMILIGNAN  | Pericarp   |          |          |                     | Valsaraj, R., Pushpangadan, P., Smitt, U. W., Adeersen, A., Christensen, S. B., Sittie, A., Nyman, U., Nielsen, C., Oslén, C. E. 1997. New Anti-HIV-1, Antimalarial, and Antifungal Compounds from Terminalia bellerica. J. Nat. Prod. 60 7: 739-742. |
| 0                | THANNILIGNAN | Pericarp   |          |          |                     | Valsaraj, R., Pushpangadan, P., Smitt, U. W., Adeersen, A., Christensen, S. B., Sittie, A., Nyman, U., Nielsen, C., Oslén, C. E. 1997. New Anti-HIV-1, Antimalarial, and Antifungal Compounds from Terminalia bellerica. J. Nat. Prod. 60 7: 739-742. |

| Activities Count | Chemical            | Plant Part | Low PPM  | High PPM | StdDev               | Reference Citation   |
|------------------|---------------------|------------|----------|----------|----------------------|--|
| 0                | TRITRIACONTAN-9-ONE | Fruit      |          |          |                      | Ali, M. 1992. Chemical Examination of Fruits of Terminalia belerica Roxb. Orient. J. Chem. 8 3: 255-256.                   |
| 0                | WATER               | Leaf       | 751000.0 | 780000.0 | -0.13788388644338306 | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes. |
| 0                | WATER               | Fruit      |          | 61000.0  | -3.0853017214408456  | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes. |