

# Chemical constituents from *Abutilon indicum*

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**Abstract:** The investigation on the chemical constituents of the whole plant of *Abutilon indicum* has resulted in the isolation of two new compounds, abutilin A (1) and (R)-N-(1'-methoxycarbonyl-2'-phenylethyl)-4-hydroxybenzamide (2), as well as 28 known compounds. The structures of the two new compounds were established on the basis of the spectroscopic analysis, and the known compounds were identified by comparison of their spectroscopic and physical data with those reported in the literature. ?? 2008 Taylor & Francis.

**Author Keywords:** *Abutilon indicum*; Amide; Biphenyl ether; Malvaceae

**Index Keywords:** 1 methoxycarbonyl beta carboline; 3 hydroxy beta damascone; 3 hydroxy beta ionol; 3,7 dihydroxychromen 2 one; 4 hydroxyacetophenone; 4 hydroxybenzaldehyde; 4 hydroxybenzoic acid; 4 hydroxybenzoic acid ester; 4 hydroxyphenylacetic acid methyl ester; abutilin a; adenine; adenosine; aurantiamide acetate; benzamide derivative; benzoic acid; coumaric acid; methylindole 3 carboxylate; n (1' methoxycarbonyl 2' phenylethyl) 4 hydroxybenzamide; n feruloyltyrosine; para coumaric acid; riboflavin; scoparone; scopoletin; sitosterol; stigmasterol; syringaldehyde; thymine; unindexed drug; vanillic acid; vanillin; *abutilon indicum*; article; drug identification; drug isolation; drug structure; medicinal plant; physical chemistry; spectroscopy; structure analysis; *Abutilon indicum*; Malvaceae

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Chemicals/CAS: 4 hydroxyacetophenone, 99-93-4; 4 hydroxybenzaldehyde, 123-08-0; 4 hydroxybenzoic acid ester, 8014-02-6; 4 hydroxybenzoic acid, 456-23-5, 99-96-7; adenine, 22177-51-1, 2922-28-3, 73-24-5; adenosine, 58-61-7; benzoic acid, 532-32-1, 582-25-2, 65-85-0, 766-76-7; coumaric acid, 25429-38-3; para coumaric acid, 7400-08-0; riboflavin, 83-88-5; scoparone, 120-08-1; scopoletin, 92-61-5; sitosterol, 19044-06-5, 83-46-5; stigmasterol, 83-48-7; syringaldehyde, 134-96-3; thymine, 65-71-4; vanillic acid, 121-34-6; vanillin, 121-33-5

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#### References:

1. Chopra, R.N., Nayer, S.L., Chopra, I.C., (1956) Glossary of Indian Medicinal Plants, p. 2. , CSIR, New Delhi
2. Kirtikar, K.R., Basu, B.D., (1975) Indian Medicinal Plants, 1, pp. 314-315. , 2nd ed, Periodical Experts, Delhi
3. K.M. Nadkarni revised by A.K. Nadkarni, Indian Mateira Medica, 3rd ed., (Popular Prakashan, Mumbai, 1976), I, p. 8Gaiind, K.N., Chopra, K.S., (1976) Planta Med, 30, p. 174
4. Mehta, B.K., Neogi, R., Kotra, S., Mall, O.P., (1997) Fitoterapia, 68, p. 273
5. Seetharam, Y.N., Chalageri, G., Ramachandra, S., Bheemachar, S., (2002) Fitoterapia, 73, p. 156
6. Beha, E., Jung, A., Wiesner, J., Rimpler, H., Lanzer, M., Heinrich, M., (2004) Phytother. Res, 18, p. 236
7. Porchezian, E., Ansari, S.H., (2005) Phytomedicine, 12, p. 62
8. Subramanian, S.S., Nair, A.G.R., (1972) Phytochemistry, 11, p. 1518
9. Sharma, P.V., Ahmad, Z.A., (1989) Phytochemistry, 28, p. 3525
10. Dhanalaksmi, S., Lakshmanan, K.K., Subramanian, M.S., (1990) J. Res. Edn. Indian Med, 9, p. 21
11. Wu, T.S., Hwang, C.C., Kuo, P.C., Kuo, T.H., Damu, A.G., Su, C.R., (2004) Chem. Pharm. Bull, 52, p. 1227
12. Wu, T.S., Leu, Y.L., Chan, Y.Y., (2000) J. Chin. Chem. Soc, 47, p. 221
13. Bailly, F., Maurin, C., Teissier, E., Vezin, H., Cotellet, P., (2004) Bioorg. Med. Chem, 12, p. 5611
14. Yu, H.J., Chen, C.C., Shieh, B.J., (1998) J. Chin. Chem. Soc, 45, p. 773
15. Lee, C.K., Lee, P.H., Kuo, Y.H., (2001) J. Chin. Chem. Soc, 48, p. 1053
16. Wu, T.S., Chang, F.C., Wu, P.L., Kuoh, C.S., Chen, I.S., (1995) J. Chin. Chem. Soc, 42, p. 929
17. Yahara, S., Uda, N., Yoshio, E., Yae, E., (2004) J. Nat. Prod, 67, p. 500
18. Skouroumounis, G.K., Sefton, M.A., (2000) J. Agric. Food Chem, 48, p. 2033
19. Fujimori, T., Kasuga, R., Kaneko, H., Noguchi, M., (1975) Agric. Biol. Chem, 39, p. 913
20. Fattorusso, E., Lanzotti, V., Taglialatela-Scafati, O., (1999) Plant Biosyst, 133, p. 199
21. Isshiki, K., Asai, Y., Tanaka, S., Nishio, M., Uchida, T., Okuda, T., Komatsubara, S., Sakurai, N., (2001) Biosci. Biotechnol.

Biochem, 65, p. 1195

22. Scott, A.I., (1964) Interpretation of the Ultraviolet Spectra of the Natural Products, p. 119. , Pergamon Press, New York
23. Lemmens, J.M., Thijs, L., Zwanenburg, B., (1984) Tetrahedron, 40, p. 3331
24. Benvenuti, S., Severi, F., Costantino, L., Vampa, G., Melegari, M., (1998) Farmaco, 53, p. 439