Natural Products

ChemFaces

N-p-trans-Coumaroyltyramine Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: N-p-trans-Coumaroyltyramine

Catalog No.: CFN98494

Cas No.: 36417-86-4

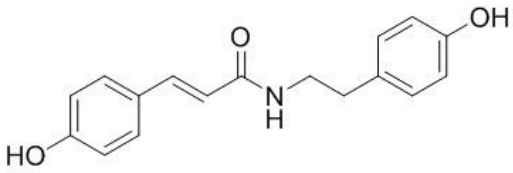
Purity: > 95%

M.F: $C_{17}H_{17}NO_3$

M.W: 283.3

Physical Description: Powder

Synonyms:



[Intended Use]

1. Reference standards;
2. Pharmacological research;
3. Synthetic precursor compounds;
4. Intermediates & Fine Chemicals;
5. Others.

[Source]

The herbs of *Exochorda racemosa.*

[Biological Activity or Inhibitors]

N-p-coumaroyltyramine, an α-glucosidase inhibitor, isolated from methanol extracts of

Welsh onion (Allium fistulosum), the inhibitory activity of it against a yeast enzyme is as high as Ki 8.4×10^{-7} M.[1]

N-p-coumaroyl tyramine is an inhibitor on acetylcholinesterase (AChE), it inhibits AChE activity in a dose-dependent manner with IC_{50} value of 34.5 microg/mL (122 microM).[2]

N-trans-p-coumaroyltyramine exhibits potent inhibition of cell proliferation, platelet aggregation, and shows antioxidant activity. [3]

N-trans-p-coumaroyltyramine and N-trans-pcoumaroyloctopamine exhibit a strong suppressive effect on phagocytosis response upon activation with serum opsonized zymosan in the range of IC_{50} = 0.5-7.2 uM, they display weak cytotoxic activity against the human Caucasian prostate adenocarcinoma cell line PC-3, with IC_{50} values ranging from 69.8 to 99.0 uM.[4]

N-trans-p-coumaroyltyramine, N-trans-caffeoyltyramine, and N-trans-feruloyltyramine as the main active constituents of a methanolic extract from aerial parts of *Polygonum hyrcanicum (Polygonaceae)* show activity against *Trypanosoma brucei rhodesiense* (IC50s ranging from 2.2 to 13.3 microM).[5]

[Solvent]

Chloroform, Dichloromethane, Ethyl Acetate, DMSO, Acetone, etc.

[HPLC Method][6]

Mobile phase: Methanol- 0.1% Formic acid in water,gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 300 nm.

[Storage]

2-8℃, Protected from air and light, refrigerate or freeze.

[References]

[1] Nishioka T, Watanabe J, Kawabata J, *et al. Biosci. Biotech. Bioch. 1997, 61(7): 1138-41.*

[2] Kim D K, Lee K. *Arch. Pharm. Res., 2003, 26(9):735-8.*

[3] Neelam S, Gokara M, Sudhamalla B, *et al. J. Phys. Chem. B, 2010, 114(8):3005-12.*

[4] Happi E N, Waffo A F, Wansi J D, *et al. Planta Med., 2011, 77(9):934-8.*

[5] Moradi-Afrapoli F, Yassa N, Zimmermann S, *et al. Nat. Prod. Commun., 2012, 7(6): 753-5.*

[6] Sun J, Gu Y F, Li M M, *et al. China Journal of Chinese Materia Medica, 2014, 39(12):2300-4.*

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