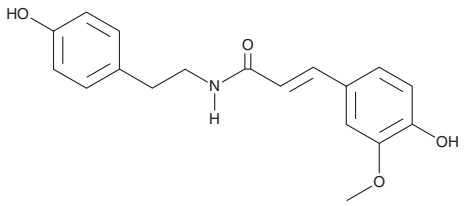
PRODUCT INFORMATION

N-*trans*-Feruloyltyramine

Item No. 27459

CAS Registry No.: 66648-43-9
Formal Name: (2E)-3-(4-hydroxy-3-methoxyphenyl)-N-[2-(4-hydroxyphenyl)ethyl]-2-propenamide
Synonyms: Alfrutamide, (E)-Feruloyltyramine, Moupinamide
MF: $C_{18}H_{19}NO_4$
FW: 313.4
Purity: ≥98%
UV/Vis.: λ_{max}: 221, 294, 320 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Plant/*Aristolochia debilis*



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

N-*trans*-Feruloyltyramine is supplied as a crystalline solid. A stock solution may be made by dissolving the N-*trans*-feruloyltyramine in the solvent of choice, which should be purged with an inert gas. N-*trans*-Feruloyltyramine is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of N-*trans*-feruloyltyramine in ethanol is approximately 25 mg/ml and approximately 30 mg/ml in DMSO and DMF.

N-*trans*-Feruloyltyramine is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, N-*trans*-feruloyltyramine should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. N-*trans*-Feruloyltyramine has a solubility of approximately 0.33 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

N-*trans*-Feruloyltyramine is a phenolic amide originally isolated from *S. melongena* that has diverse biological activities, including anti-inflammatory, antioxidative, and antiproliferative properties.[1] It decreases nitric oxide (NO) production (IC_{50} = 17.36 µM) and inducible NO synthase (iNOS) activity and increases NO scavenging without inducing cytotoxicity in LPS-stimulated BV-2 cells.[2] It also scavenges 2,2-diphenyl-1-picrylhydrazyl (DPPH; Item No. 14805) radicals in TLC autographic and spectrophotometric assays.[3] N-*trans*-Feruloyltyramine inhibits proliferation of HeLa and L929 cells by 72.2 and 22%, respectively, when used at a concentration of 30 µg/ml.[4]

References

1. Yoshihara, T., Takamatsu, S., and Sakamura, S. *Agric. Biol. Chem.* **42(3),** 623-627 (1978).
2. Kim, K.H., Moon, E., Kim, H.K., *et al. Bioorg. Med. Chem. Lett.* **22(19),** 6155-6159 (2012).
3. Calvin, A., Hostettmann, K., Dyatmyko, W., *et al. Planta Med.* **64(5),** 393-396 (1998).
4. Fang, J.-B., Jia, W., Gao, W.-Y., *et al. J. Asian Nat. Prod. Res.* **9(6-8),** 511-515 (2007).

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