

# **N-trans-FeruloyItyramine Datasheet**

5<sup>th</sup> Edition (Revised in January, 2017)

#### [Product Information]

Name: N-trans-Feruloyltyramine

Catalog No.: CFN97135

Cas No.: 66648-43-9

**Purity:** > 98%

**M.F:** C<sub>18</sub>H<sub>19</sub>NO<sub>4</sub>

**M.W:** 313.4



Physical Description: Powder

Synonyms:(E)-3-(4-hydroxy-3-methoxyphenyl)-N-[2-(4-hydroxyphenyl)ethyl]-2-propena

mide;N-feruloyltyramine.

#### [ Intended Use ]

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

# [Source]

The herbs of Cannabis sativa L.

#### [Biological Activity or Inhibitors]

N-trans-feruloyl-tyramine(NTF) has hypoglycemic and hypotensive activity, the extract and fractions of Smilax aristolochiifolia root with NTF are useful to counteract some symptoms of metabolic syndrome (MS) in animal models.<sup>[1]</sup>

N-trans-feruloyltyramine can protect against oxidative stress and cell death, it can reduce production of reactive oxygen species induced by A $\beta$ (1-42), the protective effect of NTF against A $\beta$ (1-42)-induced neuronal death might be due to its antioxidative property.<sup>[2]</sup>

N-trans-feruloyltyramine can inhibit melanogenesis by inducing downregulation of tyrosinase in a dose-dependent manner, it exhibits a greater potency than kojic acid as a standard inhibitor of melanogenesis.<sup>[3]</sup>

N-trans-feruloyltyramine possesses anti-inflammatory effect, the effect may be attributed to downregulation of COX-2 and iNOS via suppression of AP-1 and the JNK signalling pathway in RAW 264.7 macrophages.<sup>[4]</sup>

N-trans-feruloyltyramine shows cytotoxicity against the P-388 cancer cell line.<sup>[5]</sup> N-trans-feruloyltyramine exhibits antioxidant and radical scavenging properties towards beta-carotene and 2,2-diphenyl-1-picrylhydrazyl (DPPH) radical.<sup>[6]</sup>

#### [ <u>Solvent</u> ]

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

# [ HPLC Method ]<sup>[7]</sup>

Mobile phase: Acetonitrile-H2O=25:75 ; Flow rate: 1.0 ml/min; Column temperature: 30 °C; The wave length of determination: 220 nm.

# [ <u>Storage</u> ]

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

#### [ References ]

[1] Amaro C A, Gonzálezcortazar M, Herreraruiz M, *et al. Molecules*, *2014*, *19(8)*:
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[2] Thangnipon W, Suwanna N, Kitiyanant N, *et al. Neurosci. Lett.*, *2012*, *513*(*2*):229-32.
[3] Efdi M, Ohguchi K, Akao Y, *et al. Biol. Pharm. Bull.*, *2007*, *30*(*10*):1972-4.
[4] Jiang Y, Yu L, Wang M H. *Chem.Biol. Interact.*, *2015*, *235*(*25*):56-62.
[5]Chang K C, Duh C Y, Chen I S, *et al. Planta Med.*, *2003*, *69*(7):667-72.
[6] Cavin A, Hostettmann K, Dyatmyko W, *et al. Planta Med.*, *1998*, *64*(*5*):393-6.
[7] Shi L, Zhu H, Zhuo M A, *et al. Lishizhen Medicine & Materia Medica Research*, *2008*, *19(8):1815-6*

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