

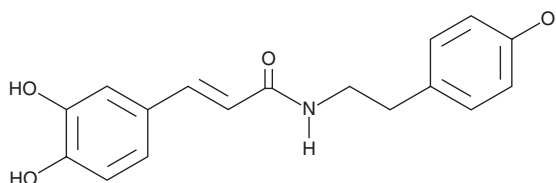
PRODUCT INFORMATION



N-*trans*-Caffeoyltyramine

Item No. 40340

CAS Registry No.: 103188-48-3
Formal Name: (2E)-3-(3,4-dihydroxyphenyl)-N-[2-(4-hydroxyphenyl)ethyl]-2-propenamide
Synonyms: *trans*-N-Caffeoyltyramine, TNC, Typheramide
MF: C₁₇H₁₇NO₄
FW: 299.3
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Plant/Litsea



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

Laboratory Procedures

N-*trans*-Caffeoyltyramine is supplied as a solid. A stock solution may be made by dissolving the N-*trans*-caffeoyltyramine in the solvent of choice, which should be purged with an inert gas. N-*trans*-Caffeoyltyramine is soluble in DMSO.

Description

N-*trans*-Caffeoyltyramine is a hydroxycinnamic acid that has been found in *C. sativa* and has diverse biological activities.¹⁻³ It decreases hydrogen peroxide-induced lactate dehydrogenase (LDH) release, production of reactive oxygen species (ROS), and apoptosis in PC12 cells when used at concentrations ranging from 5 to 40 μM.¹ N-*trans*-Caffeoyltyramine (50 μM) reduces tyrosinase activity and melanogenesis induced by the peptide hormone α-MSH (Item No. 29923) in B16/F10 cells.² *In vivo*, N-*trans*-caffeoyltyramine (200 mg/kg) induces intestinal expression of the gene encoding the nuclear transcription factor hepatic nuclear factor 4α (HNF4α) and increases the number of intestinal Paneth cells, a marker of intestinal barrier function, in a mouse model of high-fat diet-induced obesity.³

References

1. Olatunji, O.J., Chen, H., and Zhou, Y. Neuroprotective effect of trans-N-caffeoyltyramine from *Lycium chinense* against H₂O₂ induced cytotoxicity in PC12 cells by attenuating oxidative stress. *Biomed. Pharmacother.* **93**, 895-902 (2017).
2. Kim, J.K., Heo, H.-Y., Park, S., et al. Characterization of phenethyl cinnamamide compounds from hemp seed and determination of their melanogenesis inhibitory activity. *ACS Omega* **6**(47), 31945-31954 (2021).
3. Lee, S.-H., Veeriah, V., and Levine, F. A potent HNF4α agonist reveals that HNF4α controls genes important in inflammatory bowel disease and Paneth cells. *PLoS One* **17**(4), e0266066 (2022).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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