

Product Data Sheet

Product Name: N,N'-Diferuloylputrescine

Cat. No.: GC92018

Chemical Properties

Cas. No. 42369-86-8

Chemical Name N,N'-1,4-butanediylbis[3-(4-hydroxy-3-methoxyphenyl)-2-propenamide]

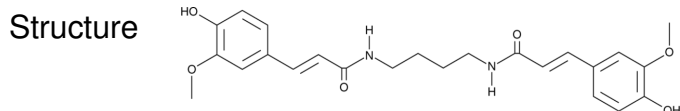
SMILES COC1=CC(C=CC(NCCCCNC(C=CC2=CC=C(O)C(OC)=C2)=O)=O)=CC=C1O

Formula $C_{24}H_{28}N_2O_6$ M.Wt 440.5

Solubility DMSO: Soluble: ≥ 10 mg/ml, Ethanol: Storage -20°C
Slightly soluble: 0.1-1 mg/ml

General tips For obtaining a higher solubility, please warm the tube at 37°C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice All other available size: ship with RT, or blue ice upon request.



Background

N,N'-Diferuloylputrescine is a polyamine that has been found in *Z. mays* and has diverse biological activities.^{1,2,3} It scavenges DPPH, superoxide, and hydroxyl radicals in cell-free assays (IC_{50} s = 38.5, 291.6, and 351.9 μM , respectively).¹ N,N'-Diferuloylputrescine inhibits tyrosinase (IC_{50} = 291.3 μM for the mushroom enzyme) and forskolin-induced pigmentation in B16/F10 melanoma cells when used at a concentration of 50 $\mu\text{g/ml}$.^{1,2} It inhibits LPS-induced increases in nitric oxide (NO) and inducible nitric oxide synthase (iNOS) levels, as well as NF- κ B activity, in RAW 264.7 macrophages when used at a concentration of 50 μM .³

References:

[1]. Choi, S.W., Lee, S.K., Kim, E.O., et al. Antioxidant and antimelanogenic activities of polyamine

Caution: Product has not been fully validated for medical applications. For research use only.

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conjugates from corn bran and related hydroxycinnamic acidsJ. Agric. Food Chem.55(10)3920-3925(2007).

[2]. Kim, M.J., Kim, S.M., Im, K.R., et al.Effect of hydroxycinnamic acid derivatives from corn bran on melanogenic protein expressionJ. Korean Soc. Appl. Biol. Chem.53(4)422-426(2010).

[3]. Kim, E.O., Min, K.J., Kwon, T.K., et al.Anti-inflammatory activity of hydroxycinnamic acid derivatives isolated from corn bran in lipopolysaccharide-stimulated Raw 26.

[4]. 7 macrophagesFood Chem. Toxicol.50(5)1309-1316(2012).

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