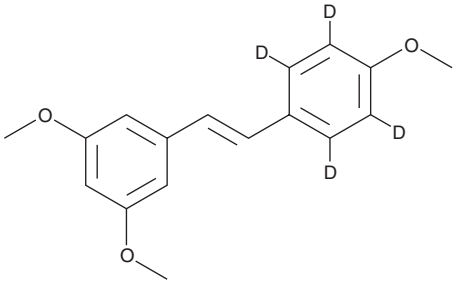
PRODUCT INFORMATION

trans-trismethoxy Resveratrol-d_4

Item No. 13129

CAS Registry No.:	1089051-64-8
Formal Name:	3-[(1E)-2-(3,5-dimethoxyphenyl) ethenyl]-6-methoxy-benzene-1,2,4,5-d_4
Synonyms:	(E)-5-[2-(4-hydroxyphenyl)ethenyl]-1,3-benzene diol-d_4, TMS-d_4, *trans*-3,5,4'-Trimethoxystilbene-d_4
MF:	$C_{17}H_{14}D_4O_3$
FW:	274.4
Chemical Purity:	≥98% (trans-trismethoxy Resveratrol)
Deuterium Incorporation:	≥99% deuterated forms (d_1-d_4); ≤1% d_0
UV/Vis.:	λ_{max}: 218, 305, 320 nm
Supplied as:	A solution in methyl acetate
Storage:	-20°C
Stability:	≥2 years
Item Origin:	Plant/*Virola cuspidata*



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

Laboratory Procedures

trans-trismethoxy Resveratrol-d_4 is intended for use as an internal standard for the quantification of *trans*-trismethoxy resveratrol (Item No. 10188) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

trans-trismethoxy Resveratrol-d_4 is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the methyl acetate under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide (DMF) purged with an inert gas can be used. The solubility of *trans*-trismethoxy resveratrol-d_4 in ethanol is approximately 10 mg/ml and approximately 50 mg/ml in DMSO and DMF.

Description

trans-trismethoxy Resveratrol is a polyketide synthase-derived stilbene originally isolated from *Virola cuspidata* that has diverse biological activities.[1-4] It is cytotoxic to several cancer cell lines, including PC3, KB, HT-29, SW480, and HL-60 cells (IC_{50}s =3.6, 10.2, 16.1, 54, and 2.5 µM, respectively).[2] *trans*-trismethoxy Resveratrol (15 µM) inhibits TNF-α-induced activation of NF-κB in HEK293T cells in a reporter assay.[3] It inhibits angiogenesis in zebrafish embryos when used at a concentration of 0.1 µM.[4]

References

1. Austin, M.B. and Noel, J.P. The chalcone synthase superfamily of type III polyketide synthases. *Nat. Prod. Rep.* **20(1)**, 79-110 (2003).
2. Aldawsari, F.S. and Velázquez-Martínez, C.A. 3,4',5-*trans*-Trimethoxystilbene; a natural analogue of resveratrol with enhanced anticancer potency. *Invest. New Drugs* **33(3)**, 775-786 (2015).
3. Heynekamp, J.J., Weber, W.M., Hunsaker, L.A., *et al.* Subsitituted trans-stilbenes, including analogues of the natural product resveratrol, inhibit the human tumor necrosis factor alpha-induced activation of transcription factor nuclear factor kappaB. *J. Med. Chem.* **49(24)**, 7182-7189 (2006).
4. Belleri, M., Ribatti, D., Nicoli, S., *et al.* Antiangiogenic and vascular-targeting activity of the microtubule-destabilizing *trans*-resveratrol derivative 3,5,4'-trimethoxystilbene. *Mol. Pharmacol.* **67(5)**, 1451-1459 (2005).

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