

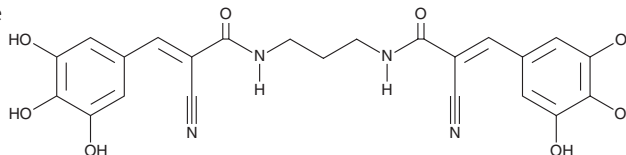
PRODUCT INFORMATION



Bis-T-23

Item No. 44119

CAS Registry No.: 171674-76-3
Formal Name: (2E,2'E)-N,N'-1,3-propanediylbis[2-cyano-3-(3,4,5-trihydroxyphenyl)-2-propenamamide]
Synonym: AG-1717
MF: C₂₃H₂₀N₄O₈
FW: 480.4
Purity: ≥90%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Bis-T-23 is supplied as a solid. A stock solution may be made by dissolving the Bis-T-23 in the solvent of choice, which should be purged with an inert gas. Bis-T-23 is slightly soluble (0.1-1 mg/ml) in DMSO.

Description

Bis-T-23 is a promoter of dynamin oligomerization.¹ It was originally discovered to inhibit phosphatidylserine-induced dynamin 1 GTPase activity (IC₅₀ = 1.7 μM) but promotes dynamin oligomerization in COS-7 cells in an actin-dependent manner when used at a concentration of 30 μM and increases dynamin 1 GTPase activity in a cell-free assay in a concentration-dependent manner.^{1,2} *In vivo*, Bis-T-23 decreases proteinuria in several rodent models of kidney disease, including acute kidney injury, chronic kidney disease, and diabetic nephropathy.³ It also inhibits HIV-1 integrase (IC₅₀s = 0.4, 0.16, and 2 μM for 3'-processing, strand transfer, and disintegration activities, respectively), is selective for HIV-1 integrase over calf thymus topoisomerase I at 100 μM, and has antiviral activity in HIV-infected CEM cells (EC₅₀ = 15.6 μM).⁴

References

1. Wang, Y., Cai, W., Cheng, Y., *et al.* Regulation of dynamin oligomerization in cells: The role of dynamin-actin interactions and its GTPase activity. *Traffic* **15**(8), 819-838 (2014).
2. Hill, T., Odell, L.R., Edwards, J.K., *et al.* Small molecule inhibitors of dynamin I GTPase activity: Development of dimeric tyrphostins. *J. Med. Chem.* **48**(24), 7781-7788 (2005).
3. Schiffer, M., Teng, B., Gu, C., *et al.* Pharmacological targeting of actin-dependent dynamin oligomerization ameliorates chronic kidney disease in diverse animal models. *Nat. Med.* **21**(6), 601-609 (2015).
4. Mazumder, A., Gazit, A., Levitzki, A., *et al.* Effects of tyrphostins, protein kinase inhibitors, on human immunodeficiency virus type 1 integrase. *Biochemistry* **34**(46), 15111-15122 (1995).

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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