

Data Sheet

Cat. No.: CS-0083415	Product Name:	Bis-T-23
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CAS No.: 171674-76-3	CAS No.:	171674-76-3
Molecular Formula: C ₂₃ H ₂₀ N ₄ O ₈	Molecular Formula:	C ₂₃ H ₂₀ N ₄ O ₈
Molecular Weight: 480.43	Molecular Weight:	480.43
Target: Dynamin; HIV Integrase	Target:	Dynamin; HIV Integrase
Pathway: Cytoskeleton; Metabolic Enzyme/Protease	Pathway:	Cytoskeleton; Metabolic Enzyme/Protease
Solubility: 10 mM in DMSO	Solubility:	10 mM in DMSO

BIOLOGICAL ACTIVITY:

Bis-T-23 (AG1717), tyrphostin derivative, is an **HIV-I integrase** inhibitor. Bis-T-23 can promote actin-dependent dynamin oligomerization. Bis-T-23 can be used for the research of HIV and chronic kidney diseases (CKD)^{[1][2]}. *In Vitro*:Bis-T-23 (AG1717) (0.18 μM) can inhibit HIV-1 integrase^[2].

AG1717 (2 µM) can inhibit binding of integrase to the substrate DNA^[2]. *In Vivo*:Bis-T-23 (AG1717) (1 ng) targets actin-dependent dynamin oligomerization in podocytes to promote proper GFB function^[1].

Bis-T-23 (i.p.; 20, 40 mg/kg) ameliorate proteinuria by altering actin dynamics^[1].

Bis-T-23 (i.p.; 20, 40 mg/kg) ameliorates or prevented proteinuria and diminished mesangial matrix expansion in diverse genetic and chronic models of glomerular disease in rodents^[1].

References:

[1]. Schiffer M, et al. Pharmacological targeting of actin-dependent dynamin oligomerization ameliorates chronic kidney disease in diverse animal models. Nat Med. 2015;21(6):601-609.

[2]. Mazumder, A., et al. Effects of Tyrphostins, Protein Kinase Inhibitors, on Human Immunodeficiency Virus Type 1 Integrase. Biochemistry, 1995, 34(46), 15111–15122.

CAIndexNames:

2-Propenamide, N,N'-1,3-propanediylbis[2-cyano-3-(3,4,5-trihydroxyphenyl)-, (2E,2'E)-

SMILES:

 $O=C(/C(C\#N)=C/C1=CC(O)=C(C(O)=C1)O)\\ NCCCNC(/C(C\#N)=C/C2=CC(O)=C(C(O)=C2)O)=O$

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

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