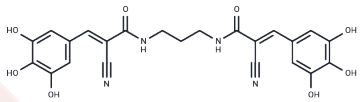
Data Sheet (Cat.No.T30479)

TargetMol

Bis-T-23

Chemical Properties



CAS No. : 171674-76-3

Formula: C23H20N4O8

Molecular Weight: 480.43

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Bis-T-23 is a promoter of actin-dependent dynamin oligomerization, an HIV-I integrase inhibitor, and a Telstar derivative. Bis-T-23 promotes actin-dependent dynamin oligomerization. Bis-T-23 can be used in studies of HIV and chronic kidney disease (CKD).
Targets(IC50)	HIV Protease,Dynamin
In vitro	Bis-T-23 (AG1717) (0.18 μM) inhibits HIV-1 integrase and, at a concentration of 2 μM, AG1717 also inhibits the binding of integrase to substrate DNA.[5]
In vivo	Bis-T-23 (1 ng) targets actin-dependent kinesin oligomerization in podocytes to promote normal GFB function. Bis-T-23 (i.p.; 20, 40 mg/kg) improves proteinuria by altering actin kinetics and reduces thylakoid matrix expansion in various genetic and chronic glomerular disease models in rodents.[6]

Solubility Information

Solubility	H2O: Insoluble DMSO: 12.01 mg/mL (25 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.0815 mL	10.4073 mL	20.8147 mL
5 mM	0.4163 mL	2.0815 mL	4.1629 mL
10 mM	0.2081 mL	1.0407 mL	2.0815 mL
50 mM	0.0416 mL	0.2081 mL	0.4163 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Sever S, Schiffer M. Actin dynamics at focal adhesions: a common endpoint and putative therapeutic target for proteinuric kidney diseases. Kidney Int. 2018 Jun ; 93(6):1298-1307. doi: 10.1016/j.kint.2017.12.028. Epub 2018 Apr 17. Review. PubMed PMID: 29678354 ; PubMed Central PMCID: PMC5967993.

Ono S, Kume S, Yasuda-Yamahara M, Yamahara K, Takeda N, Chin-Kanasaki M, Araki H, Sekine O, Yokoi H, Mukoyama M, Uzu T, Araki SI, Maegawa H. O-linked β-N-acetylglucosamine modification of proteins is essential for foot process maturation and survival in podocytes. Nephrol Dial Transplant. 2017 Sep 1 ; 32(9):1477-1487. doi: 10.1093/ndt/gfw463. PubMed PMID: 28339907.

Gu C, Lee HW, Garborcauskas G, Reiser J, Gupta V, Sever S. Dynamin Autonomously Regulates Podocyte Focal Adhesion Maturation. J Am Soc Nephrol. 2017 Feb ; 28(2):446-451. doi: 10.1681/ASN.2016010008. Epub 2016 Jul 18. PubMed PMID: 27432739 ; PubMed Central PMCID: PMC5280009.

Del Nogal-Avila M, Donoro-Blazquez H, Saha MK, Marshall CB, Clement LC, Macé CE, Chugh SS. Novel therapeutic approaches for chronic kidney disease due to glomerular disorders. Am J Physiol Renal Physiol. 2016 Jul 1 ; 311(1): F63-5. doi: 10.1152/ajprenal.00245.2016. Epub 2016 May Review. PubMed PMID: 27147672 ; PubMed Central PMCID: PMC4967169.

Mazumder A, et al. Effects of tyrphostins, protein kinase inhibitors, on human immunodeficiency virus type 1 integrase. Biochemistry. 1995 Nov 21;34(46):15111-22.

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.