
Product Data Sheet

Product Name: AT-1002
 Cat. No.: GC31538

Chemical Properties

Cas. No. 835872-35-0

SMILES N[C@@H](CC1=CC=CC=C1)C(N[C@@H](CS)C(N[C@@H]([C@H](CC)C)C(NCC(N[C@@H](CCCNC(N)=N)C(N[C@@H](CC(C)C)C(O)=O)=O)=O)=O)=O

Formula C₃₂H₅₃N₉O₇S M.Wt 707.88

Solubility Soluble in DMSO Storage Store at -20°C

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.

Structure

Background

AT-1002, a 6-mer synthetic peptide[1], is a tight junction regulator and absorption enhancer[2].

AT-1002, a 6-mer synthetic peptide, belongs to an emerging novel class of compounds that reversibly increase paracellular transport of molecules across the epithelial barrier. AT-1002 can undergo Cys-Cys dimerization[1]. Undifferentiated Caco-2 cells are treated with AT-1002 (0 to 5 mg/mL, 3 or 24 hours) and viability is assessed by measuring cellular ATP content. Treatment with AT-1002 for up to 3 h does not affect cell viability at any concentration. In particular, the viability of Caco-2 cells is not affected by 5 mg/mL AT-1002. AT-1002 reduces cell viability after 24 h at concentrations of 2.5 mg/mL and higher. However, the cells remain viable after 24 h if the cells are washed after exposure to AT-1002 for 3 h indicating that AT-1002 does not irreversibly damage cells[2]. || Cell Viability Assay[2] || Cell Line: |Caco-2 cells| Concentration: |0 to 5 mg/mL | Incubation Time: |3 or 24 hours| Result: |Treatment for up to 3 h did not affect cell viability at any concentration. Reduced cell viability after 24 h at concentrations of 2.5 mg/mL and

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

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higher.

[1]. Li M, et al. Structure-activity relationship studies of permeability modulating peptide AT-1002. *Bioorg Med Chem Lett*. 2008 Aug 15;18(16):4584-6. [2]. Gopalakrishnan S, et al. Mechanism of action of ZOT-derived peptide AT-1002, a tight junction regulator and absorption enhancer. *Int J Pharm*. 2009 Jan 5;365(1-2):121-30.

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