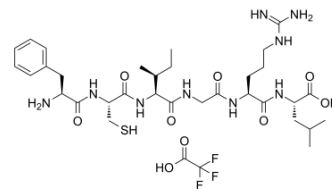


AT-1002 TFA

Cat. No.:	HY-114426A		
Molecular Formula:	C ₃₄ H ₅₄ F ₃ N ₉ O ₉ S		
Molecular Weight:	821.91		
Target:	Gap Junction Protein		
Pathway:	Cytoskeleton		
Storage:	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



BIOLOGICAL ACTIVITY

Description	AT-1002 TFA, a 6-mer synthetic peptide ^[1] , is a tight junction regulator and absorption enhancer ^[2] .								
In Vitro	<p>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].</p> <p>Cell Viability Assay^[2]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>Caco-2 cells</td> </tr> <tr> <td>Concentration:</td> <td>0 to 5 mg/mL</td> </tr> <tr> <td>Incubation Time:</td> <td>3 or 24 hours</td> </tr> <tr> <td>Result:</td> <td>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 higher.</td> </tr> </table>	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 higher.
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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 higher.								

REFERENCES

- [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.

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

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