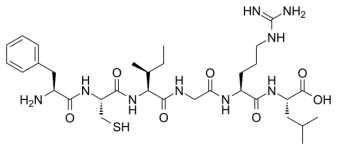
AT-1002

Cat. No.:	HY-114426
CAS No.:	835872-35-0
Molecular Formula:	$C_{32}H_{53}N_9O_7S$
Molecular Weight:	707.88
Target:	Gap Junction Protein
Pathway:	Cytoskeleton
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	AT-1002, a 6-mer synthetic peptide[1], is a tight junction regulator and absorption enhancer[2].
In Vitro	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]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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 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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