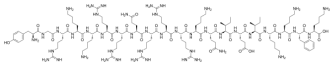
TAT-Gap19

Cat. No.:	HY-P1136B
CAS No.:	1507930-54-2
Molecular Formula:	$C_{119}H_{212}N_{46}O_{26}$
Molecular Weight:	2703.25
Sequence Shortening:	YGRKKRRQRRRKQIEIKKFK
Target:	Gap Junction Protein
Pathway:	Cytoskeleton
Storage:	Sealed storage, away from moisture Powder -80°C 2 years -20°C 1 year * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

H_2O : 50 mg/mL (18.50 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	0.3699 mL	1.8496 mL	3.6993 mL
	5 mM	0.0740 mL	0.3699 mL	0.7399 mL
	10 mM	0.0370 mL	0.1850 mL	0.3699 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: PBS
   Solubility: 100 mg/mL (36.99 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

TAT-Gap19, a Cx mimetic peptide, is a specific connexin43 hemichannel (Cx43 HC) inhibitor. TAT-Gap19 does not inhibits the corresponding Cx43 GJCs. TAT-Gap19 traverses the blood-brain barrier and alleviate liver fibrosis in mice[1][2][3].

In Vivo

A single injection of TAT-Gap19 (i.v. via the tail vein; 55 mg/kg) produces significant immune signal in the brain 24 h later in 4 months old C57Bl6 male mice[1].

TAT-Gap19 (1 mg/kg/day; an osmotic pump implanted in the peritoneal cavity; Two weeks) shows significantly decreased collagen deposition, as well as lowed amounts of α-SMA-positive cells area in mice subjected to treatment with 100-200 mg thioacetamide (TAA)/kg body weight for eight weeks[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Verónica Abudara, et al. The connexin43 mimetic peptide Gap19 inhibits hemichannels without altering gap junctional communication in astrocytes. Front Cell Neurosci. 2014 Oct 21;8:306.

[2]. Sara Crespo Yanguas, et al. TAT-Gap19 and Carbenoxolone Alleviate Liver Fibrosis in Mice. Int J Mol Sci. 2018 Mar 12;19(3):817.

[3]. Laura Walrave, et al. Inhibition of astroglial connexin43 hemichannels with TAT-Gap19 exerts anticonvulsant effects in rodents. Glia. 2018 Aug;66(8):1788-1804.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA