Product Data Sheet

Product Name: TAT acetate
Cat. No.: GC78894

Chemical Properties

Cas. No.

Formula	$C_{64}H_{118}N_{32}O_{14}{\cdot}xC_2HF_3O_2$	M.Wt	1559.83
Solubility	H_2O: 100 mg/mL (Need ultrasonic)	Storage	Sealed storage, away from moisture
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

TAT (TAT(47-57)) acetate is derived from the transactivator of transcription (TAT) of human immunodeficiency virus-1 (HIV-1) and is a cell-penetrating peptide. TAT acetate can increase the

yields and the solubility of heterologous proteins [1].

In Vitro, TAT (YGRKKRRQRRR) acetate represents amino acids 47-57 of the human immunodeficiency virus type I (HIV-1) TAT protein. The positively charged protein transduction domain of the HIV-1 TAT protein (TAT-PTD; residues 47-57 of TAT) rapidly translocates across the plasma membrane of living cells. TAT acetate can cross the hydrophobic lipid bilayer of a cell membrane simply by passive diffusion[1].

References:
[1]. Ziegler A, et al. Interaction of the protein transduction domain of HIV-1 TAT with heparan sulfate: binding mechanism and thermodynamic parameters. Biophys J. 2004 Jan;86(1 Pt 1):254-63.