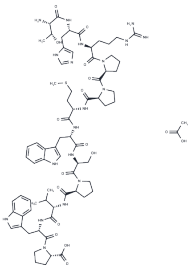
Data Sheet (Cat.No.T40428L)

TargetMol

TfR-T12 acetate

Chemical Properties



CAS No. :

Formula: C73H103N19O17S

Molecular Weight: 1550.78

Storage: Keep away from moisture
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	TfR-T12 acetate is a peptide binding to the transferrin receptor (TfR) and is subsequently internalized into TfR-expressing cells.
Targets(IC50)	Others
In vitro	TfR-T12 acetate can be chemically conjugated with a pegylated lipid derivative, 3-(N-succinimidyloxyglutaryl)aminopropyl- polyethyleneglycol(2000)- carbamyl distearoyl phosphatidylethanolamine (NHS-PEG2000-DSPE), and used as a functional material to construct the multifunctional lipid vesicles[1].
In vivo	In brain glioma-bearing mice, TfR-T12 acetate is transported across the BBB, killing brain glioma and glioma stem cells via the induction of necrosis, apoptosis and autophagy[2].

Solubility Information

Solubility	H2O: 100 mg/mL (64.48 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.6448 mL	3.2242 mL	6.4484 mL
5 mM	0.129 mL	0.6448 mL	1.2897 mL
10 mM	0.0645 mL	0.3224 mL	0.6448 mL
50 mM	0.0129 mL	0.0645 mL	0.129 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Li-Min Mu, et al. Lipid Vesicles Containing Transferrin Receptor Binding Peptide TfR-T 12 and Octa-Arginine Conjugate stearyl-R 8 Efficiently Treat Brain Glioma Along With Glioma Stem Cells. Sci Rep. 2017 Jun 14;7(1):3487.
Carmen Wängler, et al. In Vitro and Initial in Vivo Evaluation of (68)Ga-labeled Transferrin Receptor (TfR) Binding Peptides as Potential Carriers for Enhanced Drug Transport Into TfR Expressing Cells. Mol Imaging Biol. 2011 Apr; 13(2):332-41.