

Product Data Sheet

Product Name: TfR-T12 TFA

Cat. No.: GC61502

Chemical Properties

Cas. No.

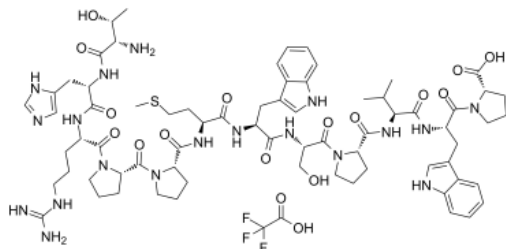
Formula $C_{73}H_{100}F_3N_{19}O_{17}S$ M.Wt 1604.75

Solubility H_2O : 100 mg/mL (62.32 mM; Need ultrasonic) Storage $-20^{\circ}C$, away from moisture and light

General tips For obtaining a higher solubility , please warm the tube at $37^{\circ}C$ and shake it in the ultrasonic bath for a while. Stock solution can be stored below $-20^{\circ}C$ 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

TfR-T12 TFA is a BBB-penetrated transferrin receptor (TfR) binding peptide, displaying a binding

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

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affinity in the nM range[1][2].

TfR-T12 binds to the TfR and is subsequently internalized into TfR-expressing cells[1]. TfR-T12 is a synthetic peptide obtained by phage display, and is able to bind a different site on TfRs compared with transferrin. TfR-T12 can be chemically conjugated with a pegylated lipid derivative, 3-(N-succinimidyl-oxyglutaryl)aminopropyl- polyethyleneglycol(2000)- carbamyl distearoyl phosphatidylethanolamine (NHS-PEG2000-DSPE), and used as a functional material to construct the multifunctional lipid vesicles[2].

[1]. 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. [2]. 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.

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