
Product Data Sheet

Product Name: RR-11a
 Cat. No.: GC33063

Chemical Properties

Cas. No. 1361390-56-8

SMILES O=C(N[C@@H](C)C(N[C@@H](C)C(NN(CC(N)=O)C(/C=C/C(ON1C(CCC1=O)=O)=O)=O)=O)OCC2=CC=CC=C2

Formula $C_{24}H_{28}N_6O_{10}$ M.Wt 560.51

Solubility Soluble in DMSO Storage Store at -20°C

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 Condition, or blue ice upon request.

Structure

Protocol**Animal experiment:**

Mice[1] Mice bearing 4T1 orthotopic tumors of approximately 500 mm³ are injected once intravenously with RR-11a+ or RR-11a-nanoparticles labeled with rhodamine B. Alternatively, mice are injected intravenously 3 times at 48-hour intervals with RDZ-218, NP-DOX, free DOX, or saline. Twenty-four hours after the final treatment, animals are sacrificed and spleen, kidney, lungs, liver, heart and tumor are collected, frozen in OCT compound, immediately sectioned and imaged by fluorescence microscopy[1].

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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References:

[1]. Liao D, et al.
Synthetic enzyme
inhibitor: a novel
targeting ligand for
nanotherapeutic drug
delivery inhibiting tumor
growth without systemic
toxicity. *Nanomedicine*.
2011 Dec;7(6):665-73.

Background

RR-11a is a synthetic enzyme inhibitor of Legumain.

Legumain-targeted RR-11a-coupled nanoparticles reveal high ligand-receptor affinity, enhance solid-tumor penetration and uptake by tumor cells[1].

Treatment of tumor-bearing mice with RR-11a-coupled NPs encapsulating doxorubicin results in improved tumor selectivity and drug sensitivity, leading to complete inhibition of tumor growth[1].

[1]. Liao D, et al. Synthetic enzyme inhibitor: a novel targeting ligand for nanotherapeutic drug delivery inhibiting tumor growth without systemic toxicity. *Nanomedicine*. 2011 Dec;7(6):665-73.

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