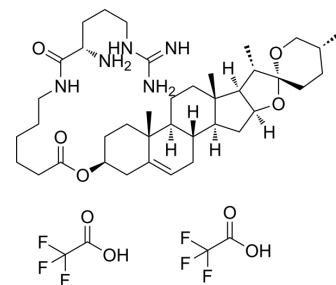


## Dios-Arg diTFA

<b>Cat. No.:</b>	HY-129990
<b>CAS No.:</b>	1807353-31-6
<b>Molecular Formula:</b>	C <sub>43</sub> H <sub>67</sub> F <sub>6</sub> N <sub>5</sub> O <sub>9</sub>
<b>Molecular Weight:</b>	912.01
<b>Target:</b>	Liposome
<b>Pathway:</b>	Metabolic Enzyme/Protease
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Dios-Arg diTFA, a cationic lipid with an arginine-bearing headgroup, shows obvious double bond proton signals at around 5.2-5.3 ppm. Dios-Arg diTFA is used, coupled to DOPE, to bind siRNA and plasmid to form cationic LNPs for intracellular transport <sup>[1][2]</sup> .
<b>In Vitro</b>	Dios-Arg shows high cytotoxicity (IC <sub>50</sub> = 83.5 µg/mL in H1299; and IC <sub>50</sub> = 74.1 µg/mL in HeLa), which may be due to the inhibition effect of diosgenin on HMG-CoA reductase, a rate-limiting enzyme involved in cholesterol biosynthesis <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

- [1]. Ruilong Sheng, et al. Cationic Nanoparticles Assembled from Natural-Based Steroid Lipid for Improved Intracellular Transport of siRNA and pDNA. *Nanomaterials* (Basel). 2016 Apr 13;6(4):69.
- [2]. Ruilong Sheng, et al. Skeleton-Controlled pDNA Delivery of Renewable Steroid-Based Cationic Lipids, the Endocytosis Pathway Analysis and Intracellular Localization. *Int J Mol Sci*. 2018 Jan 26;19(2):369.

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

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