CKK-E12

Cat. No.:	HY-134781
CAS No.:	1432494-65-9
Molecular Formula:	$C_{60}H_{120}N_4O_6$
Molecular Weight:	993.62
Target:	Liposome
Pathway:	Metabolic Enzyme/Protease
Storage:	Pure form -20°C 3 years
	4°C 2 years
	In solvent -80°C 6 months
	-20°C 1 month

SOLVENT & SOLUBILITY

In Vitro	DMSO : 50 mg/mL (50.32 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration \ Mass	1 mg	5 mg	10 mg
	1 mM	1.0064 mL	5.0321 mL	10.0642 mL
	5 mM	0.2013 mL	1.0064 mL	2.0128 mL
	10 mM	0.1006 mL	0.5032 mL	1.0064 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

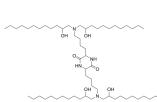| Description	CKK-E12 is a ionizable lipid in combination with other lipids make up the lipid nanoparticles which are used to deliver RNA-based research. CKK-E12 is highly selective toward liver parenchymal cell in vivo,
In Vivo	CKK-E12 delivers siRNA in mice, rats and primates (ED50 is 0.002, 0.01 and 0.3 mg/kg, respectively)[1].
	MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- cell rep methods. 2023 Dec 23:100673.

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REFERENCES

[1]. Oberli MA, Reichmuth AM, Dorkin JR, et al. Lipid Nanoparticle Assisted mRNA Delivery for Potent Cancer Immunotherapy. Nano Lett. 2017;17(3):1326-1335.

[2]. Hatit MZC, et al. Species-dependent in vivo mRNA delivery and cellular responses to nanoparticles. Nat Nanotechnol. 2022 Mar;17(3):310-318. doi: 10.1038/s41565-021-01030-y. Epub 2022 Feb 7.

[3]. Dong Y, Love KT, Dorkin JR, et al. Lipopeptide nanoparticles for potent and selective siRNA delivery in rodents and nonhuman primates [published correction appears in Proc Natl Acad Sci U S A. 2014 Apr 15;111(15):5753]. Proc Natl Acad Sci U S A. 2014;111(11):3955-3960.

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

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