



LNP GalNAc ligand 1, trifluoroacetate salt

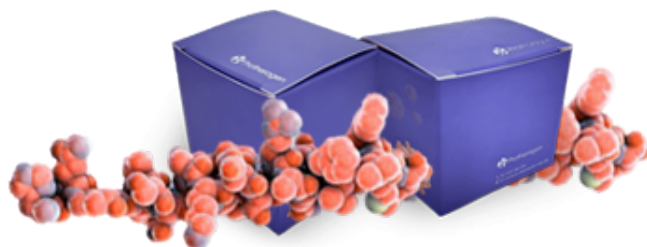
Cat. No.:	OB0626WX-3691
Appearance:	Solid
Purity:	≥95%
Identity:	Confirmed by NMR and HPLC.
Size:	1 mg; 5 mg; 10 mg; 25 mg

This product is for research use only and is not intended for diagnostic use.

Product Overview

Description	LNP GalNAc ligand 1 is a multivalent, cluster-configured N-acetylgalactosamine derivative engineered to function as a high-affinity targeting ligand for the asialoglycoprotein receptor. The geometric presentation of the GalNAc residues mimics natural multi-antenna saccharide structures, enhancing binding avidity via localized receptor clustering. This molecular anchor is specifically integrated into the outer boundaries of lipid nanoparticles to execute precise, receptor-mediated hepatic delivery of advanced CRISPR base-editing architectures.
Synonyms	6-amino-11,17-dioxo-6-[[3-oxo-3-[[3-[[1-oxo-5-[[3,4,6-tri-O-acetyl-2-(acetamino)-2-deoxy-β-D-galactopyranosyl]oxy]pentyl]amino]propyl]amino]propoxy]methyl]-N-[[3-[[1-oxo-5-[[3,4,6-tri-O-acetyl-2-(acetamino)-2-deoxy-β-D-galactopyranosyl]oxy]pentyl]amino]propyl]-21-[[3,4,6-tri-O-acetyl-2-(acetamino)-2-deoxy-β-D-galactopyranosyl]oxy]-4,8-dioxo-12,16-diazaheneicosanamide, mono(2,2,2-trifluoroacetate); LNP N-Acetylgalactosamine Ligand 1 Lipid Nanoparticle; N-Acetylgalactosamine Ligand 1 Lipid Nanoparticle; GalNAc Ligand 1; Tri-GalNAc(OAc) ₃ TFA; Tri-GalNAc(OAc) ₃ (TFA); 1159408-65-7
CAS No.	1159408-65-7
Compound CID	162394061
Formula	C ₇₉ H ₁₂₈ N ₁₀ O ₃₆ • CF ₃ COOH
Formula Weight	1908

Specification



Solubility in DMSO	1-10 mg/mL
Solubility in Ethanol	1-10 mg/mL
Solubility in Other Solvents	PBS: 1-10 mg/mL
IUPAC Name	[(2R,3R,4R,5R,6R)-5-acetamido-6-[5-[3-[3-[3-[3-[5-[(2R,3R,4R,5R,6R)-3-acetamido-4,5-diacetyloxy-6-(acetyloxymethyl)oxan-2-yl]oxypentanoylamino]propylamino]-3-oxopropoxy]-2-[[3-[3-[5-[(2R,3R,4R,5R,6R)-3-acetamido-4,5-diacetyloxy-6-(acetyloxymethyl)oxan-2-yl]oxypentanoylamino]propylamino]-3-oxopropoxy]methyl]-2-aminopropoxy]propanoylamino]propylamino]-5-oxopentoxo]-3,4-diacetyloxyoxan-2-yl)methyl acetate;2,2,2-trifluoroacetic acid
InChI	InChI=1S/C79H128N10O36.C2HF3O2/c1-46(90)87-67-73(120-55(10)99)70(117-52(7)96)58(40-114-49(4)93)123-76(67)111-34-16-13-22-61(102)81-28-19-31-84-64(105)25-37-108-43-79(80,44-109-38-26-65(106)85-32-20-29-82-62(103)23-14-17-35-112-77-68(88-47(2)91)74(121-56(11)100)71(118-53(8)97)59(124-77)41-115-50(5)94)45-110-39-27-66(107)86-33-21-30-83-63(104)24-15-18-36-113-78-69(89-48(3)92)75(122-57(12)101)72(119-54(9)98)60(125-78)42-116-51(6)95;3-2(4,5)1(6)7/h58-60,67-78H,13-45,80H2,1-12H3,(H,81,102)(H,82,103)(H,83,104)(H,84,105)(H,85,106)(H,86,107)(H,87,90)(H,88,91)(H,89,92);(H,6,7)/t58-,59-,60-,67-,68-,69-,70+,71+,72+,73-,74-,75-,76-,77-,78-;/m1./s1
InChI Key	ZQQFLUVDYMPBTBZ-QBHSIBJISA-N
Canonical SMILES	<chem>O=C(O[C@@H]1[C@H](OC(C)=O)[C@@H](NC(C)=O)[C@H](OCCCC(NCCNC(COCC(COCCC(NCCNC(CCCCO[C@@H]2O[C@@H]([C@@H]([C@@H]([C@H]2NC(C)=O)OC(C)=O)OC(C)=O)COC(C)=O)=O)(COCCC(NCCNC(CCCCO[C@@H]3[C@H](NC(C)=O)[C@H]([C@H]([C@H](O3)COC(C)=O)OC(C)=O)OC(C)=O)=O)=O)N)=O)=O)O[C@@H]1COC(C)=O)C.O=C(F)(F)F)O</chem>
Stability	1 year
Storage	Storage at -20°C.
Applications	LNP GalNAc ligand 1, trifluoroacetate salt is utilized in lipid nanoparticle research for investigating ligand-functionalized delivery systems and targeted lipid formulation strategies. It supports studies involving surface modification of nanoparticles, evaluation of GalNAc-based targeting approaches, and optimization of functional lipid components for nucleic acid delivery platforms.