

RNA Therapeutic Breakthroughs Begin with VectorBuilder

Therapeutic IVT RNA

Highlights



Comprehensive Platform

Offering research and clinical grades of RNA, a variety of RNA systems, customizable IVT RNA production and LNP encapsulation, and a full suite of CRO and CDMO services



Experts in RNA Development

Our team comprises scientists with expertise of the full scope of considerations for therapeutic IVT vector design, sequence optimization and screening, and process development



Highest Quality and Consistency

State-of-the-art facilities and equipment providing the highest purity and consistency, ensured by a full panel of quality control assays

Services Offered

Therapeutic IVT RNA
Development



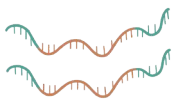
LNP Encapsulation



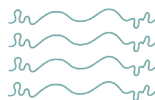
GMP Manufacturing



Products Offered



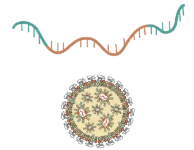
mRNA



saRNA



circRNA



Premade IVT RNA
and LNP-RNA

Workflow of Therapeutic IVT RNA Development



Experimental Data

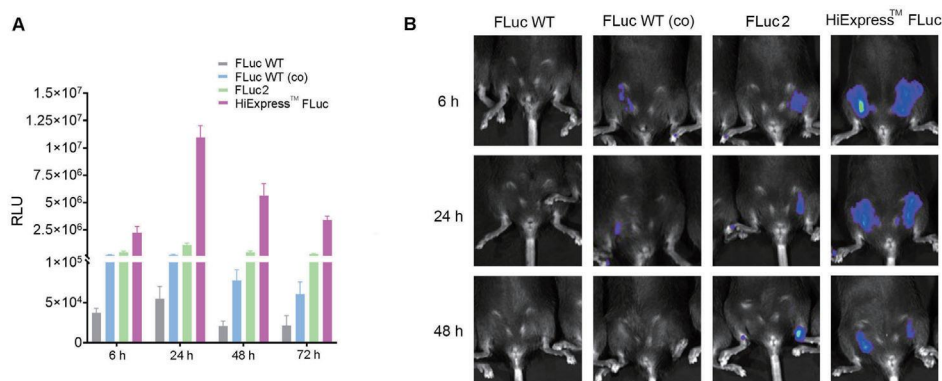


Figure 1. (A) Expression of HiExpress™ Firefly Luciferase mRNA and other luciferase mRNA in HEK293T cells. Cells grown on a 12-well plate were transfected with 0.5 ug of mRNA per well. (B) Luciferase activity measured in adult C57BL/6 mice injected intramuscularly with 30 ug of LNP-mRNA.

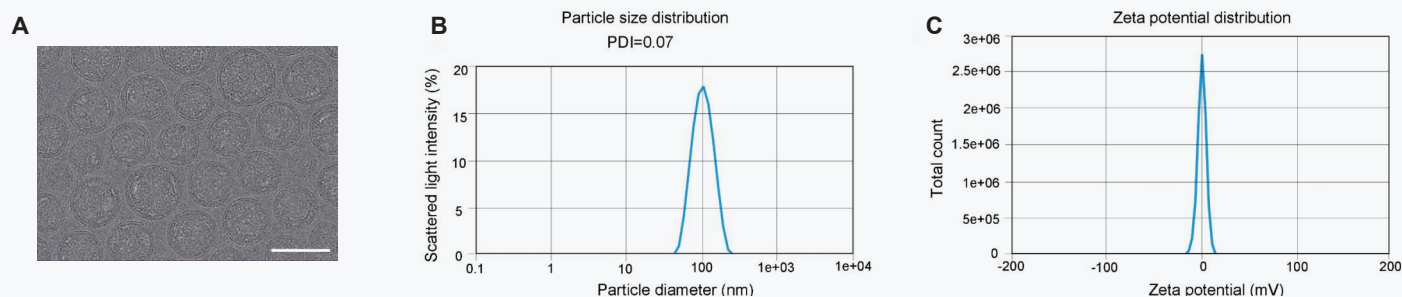


Figure 2. (A) Cryo-TEM micrograph of LNP-mRNA. Scale bar=100 nm. (B) and (C) show particle size and Zeta potential distribution analysis. PDI (B) and Zeta potential (C) were determined by DLS which measures the intensity differences of fluctuated light due to motion of particles. Data demonstrates homogeneous LNP mixtures.

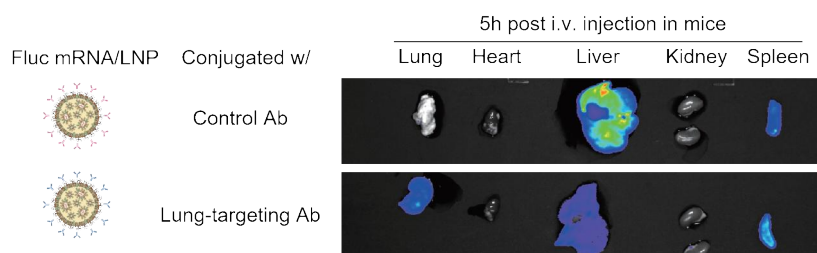


Figure 3. Anti-CD31 conjugated firefly luciferase (FLuc) LNP-mRNA showed improved luciferase expression in lung. Mice strain: C57BL/6J; mice age: 6-8 weeks; mice gender: female; administration route: tail vein. Negative controls: IgG2a-conjugated FLuc LNP-mRNA and naked FLuc mRNA.