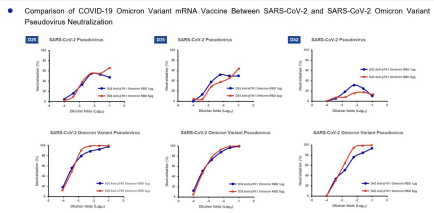
RNAutomation™ mRNA Capping Kit

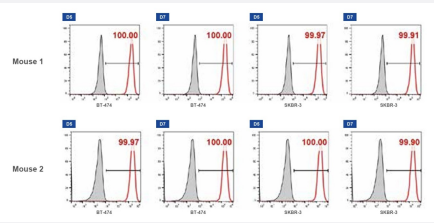
Catalog # KA7331 Size 1 Kit

Applications



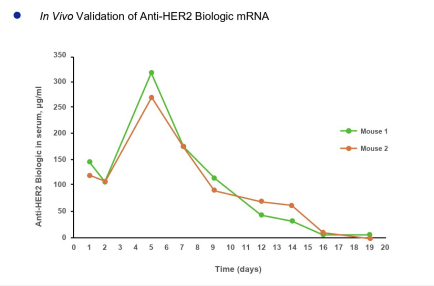
Vaccine mRNA

Neutralizing IgG responses in C57BL/6 mice following intramuscular administration of RNAutomation™ platform derived pTK Omicron RBD mRNA vaccine. Mice received two intramuscular doses of 1 ug or 5 ug of the mRNA LNP formulation. Serum samples were collected on days 28, 35, and 42 post first administration. Neutralizing IgG activity was measured using a pseudovirus neutralization assay. The mRNA vaccine elicited antibody responses effective against both the SARS-CoV-2 Omicron variant and the ancestral wild-type strain.



Antibody Biologic mRNA

Flow cytometry analysis of HER2 protein expression on BT-474 and SKBR-3 human breast cancer cell lines treated with serum from C57BL/6 mice administered RNAutomation™ derived, mRNA-encoded anti-HER2 biologic. Mice received a single intravenous dose of 45 ug anti-HER2 mRNA LNP, and serum samples were collected on days 5 and 7 post administration. The study was performed in a double-replicate design.



Antibody Biologic mRNA

Pharmacokinetic profile of RNAutomation™ platform derived mRNA-encoded anti-HER2 biologic in C57BL/6 mice. Mice received a single intravenous dose of 45 ug anti-HER2 mRNA LNP, and serum samples were collected on days 1, 2, 5, 7, 9, 12, 14, 16, and 19 post administration. The circulating anti-HER2 biologic was quantified using an ELISA-based detection method. The study was performed in a double-replicate design.

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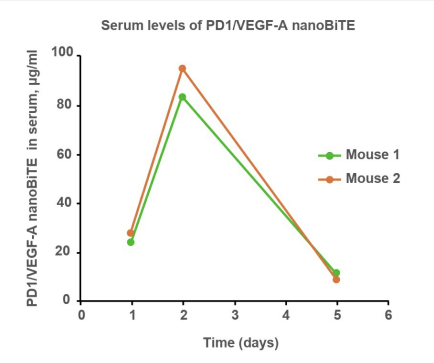
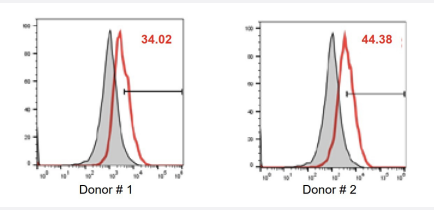


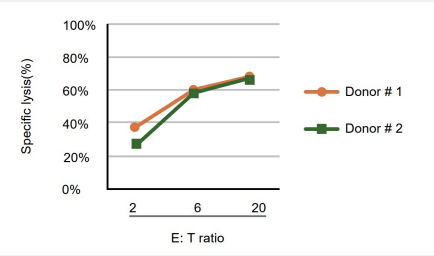
nanoBiTE mRNA

Pharmacokinetic profile of RNAutomation™ platform derived mRNA-encoded PD1/VEGF-A nanoBiTE in C57BL/6 mice. Mice received a single intravenous dose of 40 ug PD1/VEGF-A nanoBiTE mRNA LNP, and serum samples were collected on days 1, 2, and 5 post administration. The circulating PD1/VEGF-A nanoBiTE was quantified using a sandwich ELISA assay. The study was performed in a double-replicate design.



nanoCAR-T mRNA

Flow cytometry analysis of CD13 expression on expanded and activated human CD8 T cells. The cell surface expression of CD13 nanoCAR was detected using Alexa Fluor® 488 AffiniPure Goat Anti-Alpaca IgG, VHH domain antibody.



nanoCAR-T mRNA

In vitro cytotoxic activity of CD13 nanoCAR-T cells. THP-1 human cancer cells were incubated with CD13 nanoCAR-T cells at the indicated E:T ratios for 24h.

Product Image

Product Image

Specification

Product Description	RNAutomation™ mRNA Capping Kit enables automated capping on the RNAutomation™ platform.
Instrument Requirement	RNAutomation™ mRNA Upgrades

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Supplied Products	Kit content: 1. Vaccinia Capping Enzyme 2. Cap 2'-O-Methyltransferase 3. SAM 4. GTP 5. RNase Inhibitor 6. Capping Buffer 7. RNA Clean Beads 8. RNase Free Water
Pack Size	120 reactions
Regulatory Status	For research use only (RUO)
Storage Instruction	Store Vaccinia Capping Enzyme, Cap 2'-O-Methyltransferase, SAM, GTP, RNase Inhibitor and Cap ping Buffer at -20°C. Store RNA Clean Beads and RNase Free Water at 4°C. Aliquot to avoid repeated freezing and thawing.
Note	Product Image Product Image

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