Report of Analysis

Product Name	mCherry self-amplifying RNA
Catalog No.	EB-RNA018
Size	100 ug, 1 mg
Storage	–80 °C(Avoid freeze/thaw cycles)

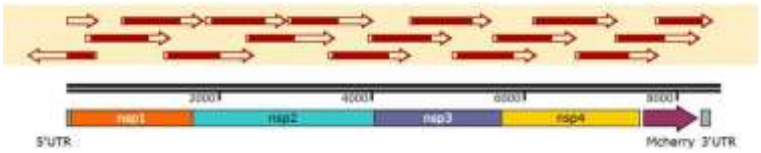
Specifications

Test Item	Method	Result
Appearance	USP<790>	Clear, colorless solution
pH	USP<791>	6.5
Content	UV-Vis	1.0 mg/mL
A260/280	UV-Vis	2.2
Identity	Sanger sequencing	ORF sequence 100% matches
Integrity	Capillary electrophoresis	88.1 %
Poly(A) tailed %	RP-HPLC	870 %
Capping efficiency	LC-MS	> 99.0 %
Residual protein	Fluorescence	< 1.0 μg/mg
Residual DNA template	qPCR	4. 1ng/mg
dsRNA	ELISA	180.0 ng/mg
Endotoxin	USP<85>	< 5 EU/mL
In vitro expression	SDS-Page	Expressed protein size matches expectation
In vitro expression	Cell-based assay	Target protein expression observed In transfected 293T cells

- **Identity: Sanger sequencing**

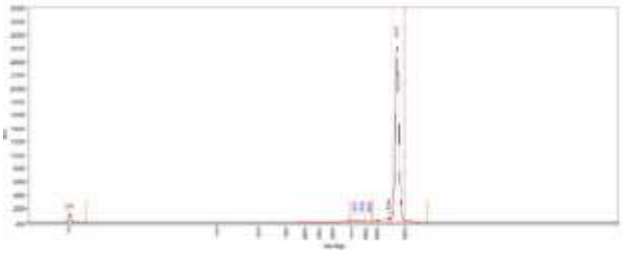
The sequence was successfully verified through Sanger sequencing, with the results confirming a 100% match with

the theoretical ORF sequence.



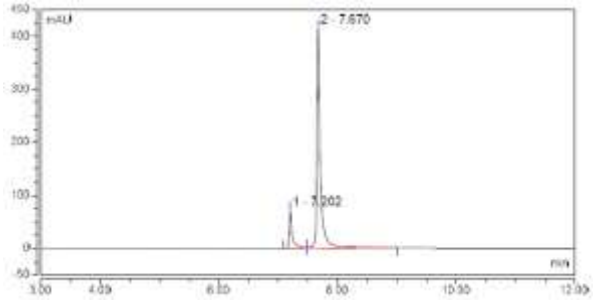
- **Integrity: Capillary electrophoresis**

Size range (nt)	Average size (nt)	Integrity (%)
7573 - 8959	8189	88.1



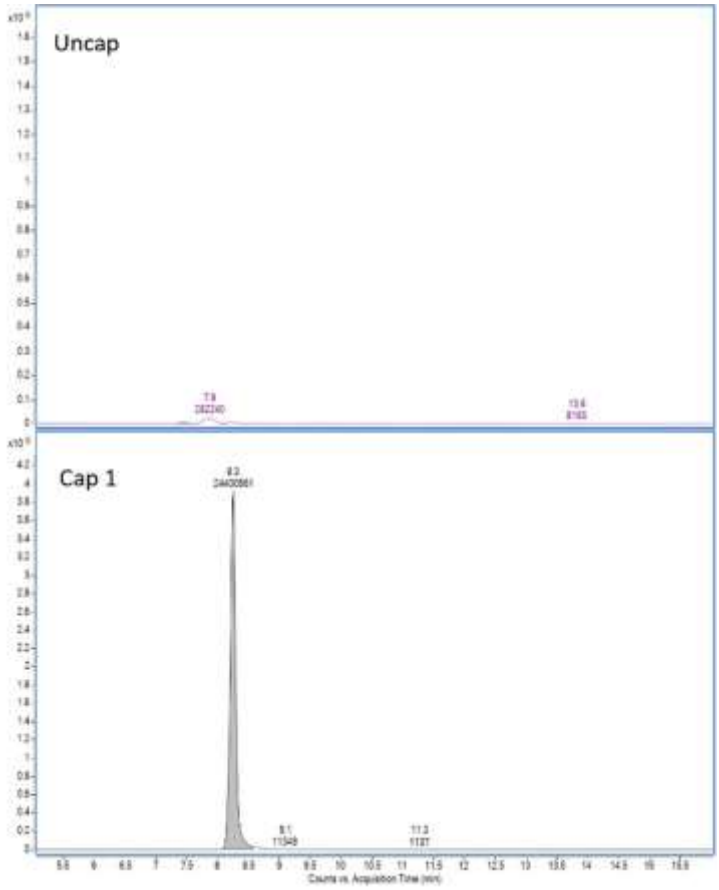
- **Poly(A) tailed %: RP-HPLC**

RT (min)	Area	Area (%)	Area (%)
Tailless	7.202	4.304	13.0
Tailed mRNA	7.670	28.837	87.



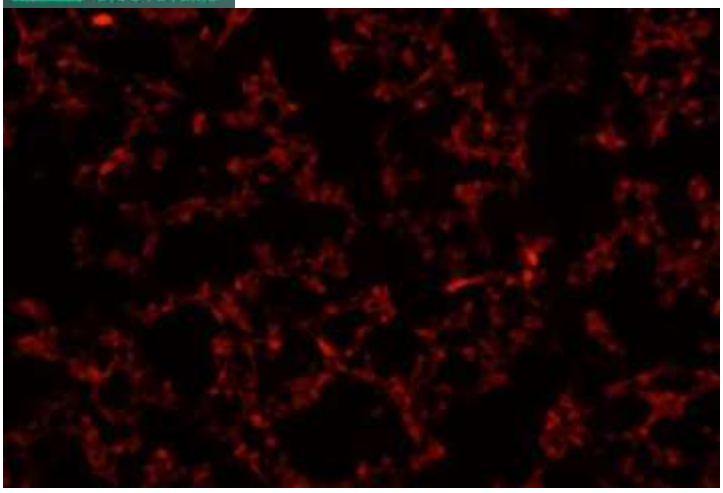
- **Capping efficiency: LC-MS**

Name	RT (min)	Area	Area (%)
Uncap	N.D.	N.D.	N.D.
Cap 1	8.3	24400561	＞99.0



- **In vitro expression: Cell-based assay**

The saRNA samples were transfected into 293T cells using a transfection reagent. 48 hours post-transfection, robust mCherry expression was confirmed by fluorescence microscopy, with distinct red fluorescence observed in the transfected cells.



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