



Report of Analysis

Product Name	Ovalbumin (OVA) mRNA
Catalog No.	EB-RNA013
Size	100 ug
Storage	-80 °C(Avoid freeze/thaw cycles)

Specifications

Test Item	Method	Result
Appearance	USP<790>	Clear, colorless solution
pH	USP<791>	6.59
Content	UV-Vis	2.0 mg/mL
A260/280	UV-Vis	2.0
Identity	Sanger sequencing	ORF sequence 100% matches
Integrity	Capillary electrophoresis	96.0%
Purity	RP-HPLC	91.0%
Poly(A) tailed %	RP-HPLC	98.0%
Capping efficiency	LC-MS	99.0%
Residual protein	Fluorescence	< 1.0 µg/mg
Residual DNA template	qPCR	< 0.01 ng/mg
dsRNA	ELISA	60.4 ng/mg
Endotoxin	USP<85>	< 5 EU/mL
In vitro expression	SDS-Page	Expressed protein size matches expectation



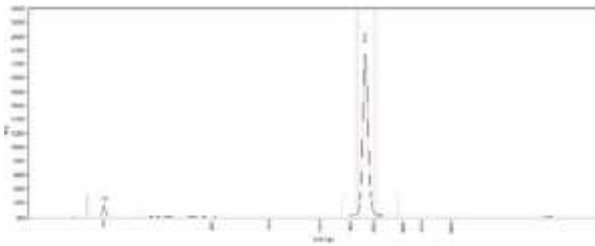
- **Identity: Sanger sequencing**

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



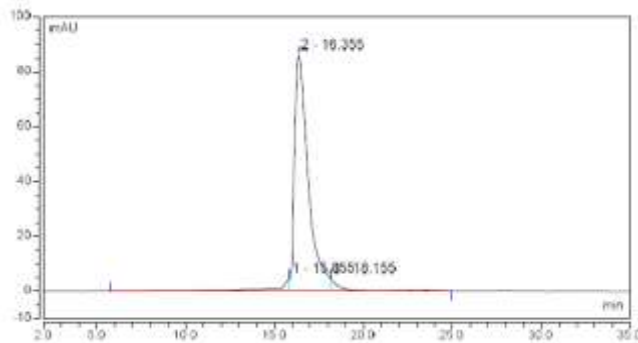
- **Integrity: Capillary electrophoresis**

Size range (nt)	Average size (nt)	Integrity (%)
1628-2032	1818	95.7



- **Purity: RP-HPLC**

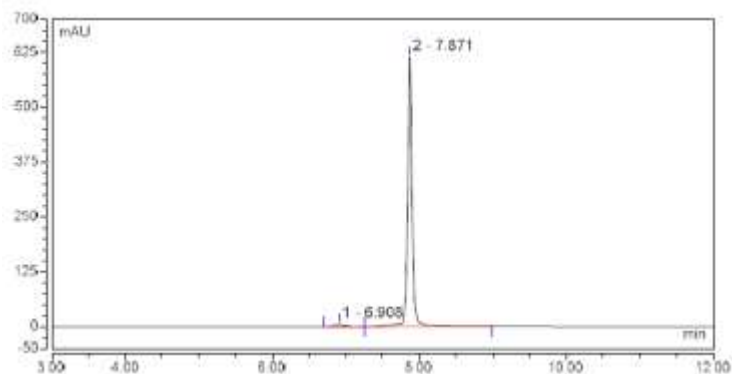
RT (min)	Area	Area (%)
15.855	4.060	4.8
16.355	76.468	91.3
18.155	3.239	3.9





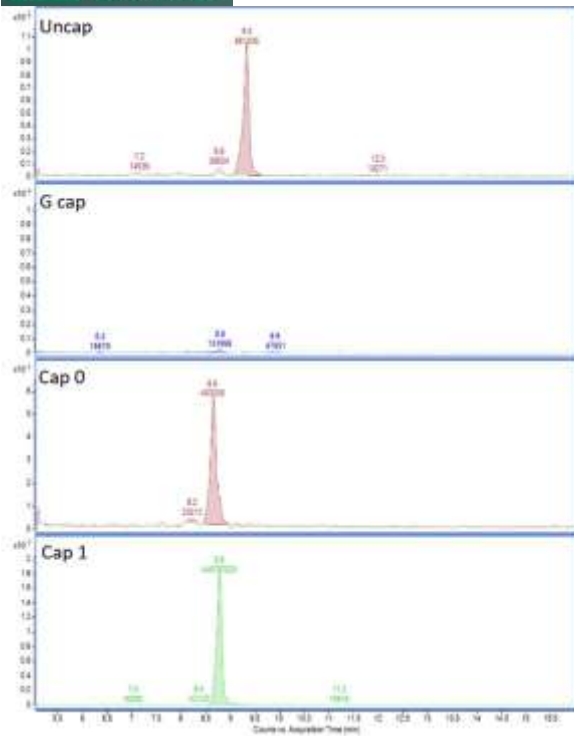
- **Poly(A) tailed %: RP-HPLC**

RT (min)	Area	Area (%)	Area (%)
Tailless	5.908	0.771	1.8
Tailed mRNA	7.871	42.955	98.2



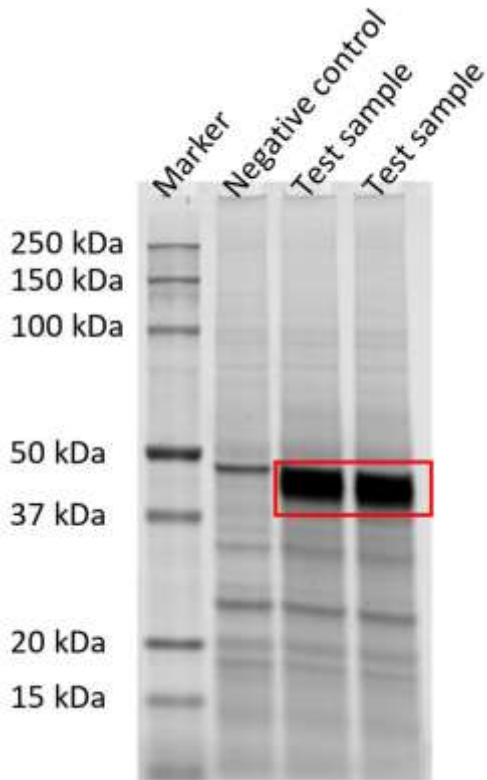
- **Capping efficiency: LC-MS**

Name	RT (min)	Area	Area (%)
Uncap (PPP)	9.3	881205	0.6
G cap	N.D.	N.D.	N.D.
Cap 0	8.6	497035	0.3
Cap 1	8.8	144797026	99.0



- **In vitro expression: cell-free translation**

The mRNA sample was translated using a cell-free translation system, and the resulting mixture was analyzed via SDS-PAGE. The SDS-PAGE results confirm that this batch of mRNA successfully expressed protein, with the expressed proteins corresponding to the anticipated size of 42.9 kDa.



Disclaimer:

This product is for RESEARCH USE ONLY and is not intended for any diagnostic or therapeutic use in humans. The results of this report apply only to this batch of products.

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