



RNA VAXBIO

PIONEERING HEALTH TECH

Solving the World's Biggest Health Challenges using mRNA Platform Based Technologies

We offer health technologies that use cutting-edge mRNA solutions for vaccine development and therapeutics for life threatening and debilitating diseases.

Contact Us.

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About Us



RNA VAXBIO is an Indian company that was born out of the need for innovative technology in the bio pharma sector and has its roots in the idyllic town of Solan, Himachal Pradesh.

Founded by a group of eminent scientists and social entrepreneurs, RNA VAXBIO has been created to develop as a single source supply chain provider for mRNA platform technology based solutions to health problems that invade the world.

Currently, we provide vitro synthesized linear mRNA, customized and purified as per a user's requirement. In mRNA platform based technology, genetic information in the form of mRNA is used to direct protein production in humans. An mRNA molecule with enhanced stability is desirable, as it would potentially have greater potency and better clinical efficacy.

Factors that affect the physical stability and biological activity, and in turn, protein expression of mRNA are:-

- (a) Structural Stability
- (b) Codon Usage
- (c) GC Content
- (d) Balancing Ribosomal Load
- (e) Optimisation of shelf life of mRNA in the various delivery vehicle components.

mRNA designed to maximize the SARS- CoV-2 spike protein expression do not necessarily produce the highest antibody titres. However, it is a challenge to find the best suited mRNA sequence due to synonymous codons in the mRNA space. E.g. there are around 2.4x10⁶32 candidate sequences for the SARS- CoV-2 spike protein.

We are now developing protocols to synthesise mRNA for a gene of interest using Machine learning methods, which use predictive and generative models to study the complex relationships between various mRNA properties listed above. Apart from significantly improving outcomes, our technology will greatly reduce research and development cost.

We are also developing methods of mRNA delivery to the cytoplasm using nanotechnology to aid development of novel vaccines and therapeutics. We aim to develop prophylactic vaccines and novel therapeutics using mRNA technology in future.

Products

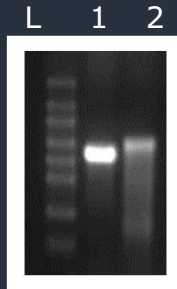
1. Reporter Genes mRNA CLuc

The CLuc mRNA will express a luciferase protein, originally isolated from the marine ostracod, *Cypridinanoctiluca*. CLuc is optimized for mammalian systems. It emits bioluminescence in the presence of the substrate, Vargulin.

This mRNA is ARCA capped using co-transcriptional capping method and is polyadenylated. It mimics a fully processed mature mRNA.

Cat No	Quantity
RNA001-100	100 ug
RNA001-1000	1 mg

1 CLUC mRNA, L is RNA ladder



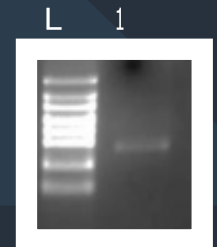
2. Reporter Genes mRNA AcGFP

The eGFP mRNA expresses a mutant green fluorescent protein, originally isolated from jellyfish, *Aequorea victoria*. eGFP is used as direct detection reporter in mammalian cell culture, yielding bright green fluorescence.

This mRNA is ARCA capped using co-transcriptional capping method and is polyadenylated. It mimics a fully processed mature mRNA.

Cat No	Quantity
RNA004-100	100 ug
RNA004-1000	1 mg

1 eGFP mRNA. L is RNA ladder



3. Customised mRNA

We provide in vitro synthesized linear mRNA customized and purified as per a gene of interest.