NEW

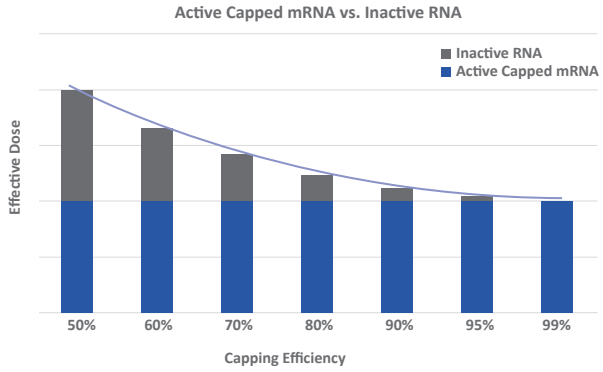
CleanCap® AU

Revolutionary Capping Technology

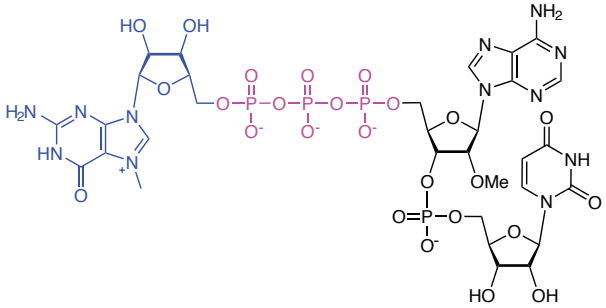
Designed to facilitate productive saRNA research

Successful development of mRNA vaccines and therapeutics relies on reproducible, highly efficient production of capped mRNA. TriLink BioTechnologies developed a novel co-transcriptional capping method with a 5′ AU initiation that results in high capping efficiency. This revolutionary CleanCap analog supports an increasingly popular vaccine development platform — self-amplifying RNAs (also known as saRNAs or self-replicating RNAs). CleanCap AU was designed with this promising vaccine platform in mind, as it yields the authentic alphavirus 5′ end. Self-amplifying RNAs capped with CleanCap AU demonstrate high yields, which minimize overall effective dose with more active mRNA compared to legacy co-transcriptional capping methods. Additionally, the CleanCap one-pot synthesis streamlines mRNA manufacturing and your overall development timelines.

Minimize effective dose with highly capped mRNA



CleanCap AU



CleanCap AU expands the compatibilities of T7 *in vitro* mRNA synthesis

The TriLink suite of CleanCap analogs has expanded possibilities for initiating dinucleotides compatible with robust T7 *in vitro* mRNA synthesis. Now, with the introduction of CleanCap AU, an additional compatible sequence is available. The CleanCap AU analog initiates by binding to the AU portion of the +1 and +2 nucleotides downstream of the T7 promoter. CleanCap AU supports streamlined manufacturing time and improved scalability, particularly for self-amplifying RNAs.

CleanCap Cap 1 AU

CleanCap AU promotes self-amplifying RNA applications

CleanCap AU was specifically designed for self-amplifying RNAs based on the genomes of (+) strand RNA viruses, which are capped and begin with an AU sequence. Recent data suggests that the 5′ AU sequence is important for viral replication[1].

The advantages of CleanCap AU are most applicable to self-amplifying RNA vaccine and personalized cancer vaccine development. In self-amplifying RNA vaccines, scientists replace the viral structural proteins with their desired antigen. Upon delivery, the self-amplifying RNA replicates through a double-stranded intermediate, which increases its persistence and induces an innate immune response to promote antigenicity of the vaccine. Personalized cancer vaccine development relies on designing a self-amplifying vaccine that can express multiple individualized neoantigens present in an individual patient's tumor. For personalized cancer vaccines, streamlined reagent manufacturing is absolutely critical, due to the importance of minimizing needle to needle time from biopsy to treatment.

Reference: [1]Kulasegaran-Shylini et al., J. Virol. (2009) 83 (17) 8327–8339.

Product Details

CleanCap AU Reagent	
Catalog #	**Unit Size**
N-7114-1	**1 µmole**
N-7114-5	**5 µmole**
N-7114-10	**10 µmole**

For larger quantities, please contact **orders@trilinkbiotech.com** for a bulk quote.

CleanCap AU is available as:

- GMP custom mRNA manufacturing
- Custom mRNA manufacturing
- Reagent for discovery and GMPlink™ grades

Please visit our website to learn more.

Be part of the revolution.

For more information visit: **trilinkbiotech.com/cleancap**