Research Tools

SARS-CoV-2 Polymerase Production

WARF: P210033US01

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The Wisconsin Alumni Research Foundation (WARF) is seeking commercial partners interested in developing the viral nsp12 polymerase from SARS-CoV-2 for use in coronavirus therapeutics, diagnostics and research tools.

Overview

Coronaviruses are a group of RNA viruses that can cause disease. Some, such as the common cold, can cause mild disease, while others, such as COVID-19, can be lethal. An unusual characteristic of coronaviruses compared to other RNA viruses is that they couple their RNA polymerases with an exonuclease to correct errors that occur over the course of viral replication. This coupling not only increases the accuracy of viral replication but also makes coronaviruses resistant to many antiviral nucleoside analogs. High quality laboratory reagents are needed to assess therapeutics and diagnostics that will have activity against the coronavirus polymerases.

The Invention

UW-Madison researchers have produced the viral nsp12 polymerase from SARS-CoV-2 using recombinant protein production. The nps12 recombinant tagged protein has a C-terminal Strep tag and is free from protein and nucleic acid contaminants. The researchers have shown that it possesses polymerase enzyme activity.

Applications

- Usage in coronavirus therapeutics, diagnostics, and research tools
- Assessing the activity of small molecules that act against the coronavirus polymerases

Key Benefits

- High quality protein product
- Possesses polymerase enzyme activity

Tech Fields

- Research Tools : Protein interactions & function

For current licensing status, please contact Jennifer Gottwald at jennifer@warf.org or 608-960-9854