

INNOVATIONS IN COVID-19

Bridging opportunities
at Oswaldo Cruz Institute

RECOMBINANT MYCOBACTERIA FOR THE EXPRESSION OF SECRETED SARS-COV-2 ANTIGENS (CÓD. 2020.003-A)

COORDINATOR

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RESEARCH AREA

Prevention and Reduction of Contagion

DEVELOPMENT STAGE

Level 4 - TRL - Component and/or breadboard validation in laboratory environment.
MRL - Capability to produce the technology in a laboratory environment.

PROPOSITION / APPLICATION

Proteins can be obtained in large quantities and high quality through expression in recombinant form using a heterologous systems. Several systems are available for this purpose. Production of secreted recombinant proteins using mycobacterial expression systems is a valuable alternative, yielding the necessary materials for use in diagnosis and/or therapy.

INNOVATION

The innovation lies in the way of obtaining recombinant proteins, which in this case will be expressed in mycobacterial hosts, in secreted form. This approach makes it possible to obtain the protein in soluble form, favouring its correct conformation, thus facilitating its purification from the culture supernatant.

OPPORTUNITY

It is a service offering that aims to provide purified recombinant proteins to groups that develop diagnostic tests or other types of assays that require this input. We emphasize that obtaining recombinant SARS-CoV-2 proteins, for diagnostic purposes secreted by Mycobacteria, is interesting since these proteins can have their primary sequence altered by synthetic biology, enabling the evaluation of variants of the same target.

CONTACT

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