DETECTION ASSAY FOR SARS-COV-2 VIRUS

Tech ID: 32844 / UC Case 2020-248-0

INVENTION NOVELTY

Researchers at UCSF and the Chan Zuckerberg Biohub have developed methods to detect SARS-CoV-2 virus.

VALUE PROPOSITION

Rapid viral antigen detection, without laborious wash steps

TECHNOLOGY DESCRIPTION

Clinical laboratory tests and point-of-care tests are needed for screening and diagnosis of individuals infected with SARS-CoV-2 virus. SARS-CoV-2 infection begins with viral Spike protein binding to the human surface receptor protein angiotensin-converting enzyme II (ACE2). As SARS-CoV-2 continues to spread around the world, there is an urgent need for new assay formats to detect viral antigens, such as the surface Spike glycoprotein.

APPLICATION

Detection of SARS-CoV-2 viral antigens in patient samples

STAGE OF DEVELOPMENT

The inventors have developed a proximity-based split reporter detection assay for SARS-CoV-2 virus. The split reporter detection assay comprises a pair of fusion proteins that are used together to detect the presence of viral antigen. The reporter proteins form an enzymatically active protein complex when they associate in the presence of virus. The inventors demonstrate the utility an exemplary sensor, ACE2-Fc split reporters, for detecting viral Spike molecules on pseudotyped lentivirus expressing SARS-CoV-2 Spike glycoprotein.

RELATED MATERIALS

- Trimeric SARS-CoV-2 Spike interacts with dimeric ACE2 with limited intra-Spike avidity - 05/21/2020

PATENT STATUS

Patent Pending

CONTACT

Gemma E. Rooney
Gemma.Rooney@ucsf.edu
tel: 415-625-9093.

OTHER INFORMATION

KEYWORDS

affinity reagent, biosensor

system, antibody

CATEGORIZED AS

- Medical
  - Diagnostics
  - Disease: Infectious Diseases

RELATED CASES

2020-248-0

ADDRESS

UCSF

Innovation Ventures

600 16th St, Genentech Hall, S-272,

San Francisco,CA 94158

CONTACT

Tel:

innovation@ucsf.edu

https://innovation.ucsf.edu

Fax:

CONNECT

Follow Connect