ENGINEERED ACE2 RECEPTOR TRAPS TO BLOCK SARS-COV-2 INFECTION

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INVENTION NOVELTY

Researchers at UCSF and the Chan Zuckerberg Biohub have developed a set of ACE2 variants which potently block SAR-CoV-2 infection in cells.

VALUE PROPOSITION

- Receptor traps neutralize SARS-CoV-2 as effectively as high-affinity antibodies isolated from convalescent patients
- ACE2 receptor traps have large binding interfaces and block the entire receptor binding interface, limiting the potential impact of viral escape mutations
- Receptor traps can be predesigned for viruses with known entry receptors

TECHNOLOGY DESCRIPTION

SARS-CoV-2 is the stain of coronavirus that causes COVID-19. This virus is characterized by spike proteins on its surface, which mediate infection by binding to host cell receptor protein angiotensin-converting enzyme II (ACE2). To date, few antiviral therapeutic agents have demonstrated clinical efficacy in treating COVID-19. Therefore, the is an urgent need for additional pharmaceutical agents to treat COVID-19.

APPLICATION

- SARS-CoV-2 antiviral therapeutic

STAGE OF DEVELOPMENT

Research – *in vitro*

RELATED MATERIALS

- Engineered ACE2 receptor traps potently neutralize SARS-CoV-2 - 10/22/2020

PATENT STATUS

Patent Pending

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OTHER INFORMATION

KEYWORDS

Affinity reagent, Biomolecules, yeast particle display

CATEGORIZED AS

- Medical
  - Disease: Infectious Diseases
  - Therapeutics

RELATED CASES

2020-251-0

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