Inhibitors Of Viral Macrodomains

Tech ID: 34442 / UC Case 2024-125-0

TECHNOLOGY DESCRIPTION

This technology is a novel antiviral small molecule inhibitor targeting viral macrodomains, which are key enzymes that viruses use to evade the host immune response. By preventing viral macrodomains from removing critical modifications that suppress viral replication, this therapeutic approach enhances the body's innate ability to fight infections. Currently in the preclinical stage, the team has developed potent lead compounds that exhibit strong efficacy in vitro, in cells, and in animal models, including complete protection against pathogenic SARS-CoV-2 infection in mice.

What sets this technology apart is its unique mechanism of action targeting a conserved viral macrodomain enzyme found across multiple virus classes, including coronaviruses, alphaviruses, and herpesviruses. This groundbreaking approach not only addresses the unmet need for direct-acting antiviral therapies for emergent viral threats but also lays the foundation for broad-spectrum antiviral drug development.

STAGE OF DEVELOPMENT

Pre-clinical

RELATED MATERIALS

- The Mac1 ADP-ribosylhydrolase is a therapeutic target for SARS-CoV-2 - 11/19/2025

PATENT STATUS

Patent Pending

CONTACT

Catherine Smith

Catherine.Smith2@ucsf.edu

tel: 510-646-0631.

OTHER INFORMATION

CATEGORIZED AS

- **Medical**
  - Disease: Infectious Diseases

RELATED CASES

2024-125-0

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: