ANTISENSE OLIGONUCLEOTIDES TARGETING INFLUENZA A

Tech ID: 33825 / UC Case 2025-056-0

PATENT STATUS

Patent Pending

BRIEF DESCRIPTION

Influenza A virus (IAV) poses an ever-evolving threat due to its high mutation rate and ability to reassort, leading to new viral variants that evade existing vaccines and treatments. Historically responsible for devastating global pandemics, including the infamous Spanish Flu, and currently fueling concerns with the spread of highly pathogenic Avian Influenza (HPAI H5N1), IAV remains a pressing global health challenge.

UC Berkeley researchers have developed an Antisense Oligonucleotides (ASO) therapy that is an next-gen approach to combating influenza by modulating IAV activity at its genetic level. Unlike traditional antivirals or seasonal vaccines that struggle to keep up with mutating strains, this ASOs therapy targets the ultra-conserved U12 region within the IAV RNA genome, offering broad-spectrum efficacy against even the most elusive influenza strains.

SUGGESTED USES

- Therapeutic treatment for Influenza A virus

ADVANTAGES

- Works against diverse IAV strains, reducing pandemic risk.
- Directly inhibits viral replication by modifying genetic activity.
- Complements existing flu prevention strategies, improving immune defense.
- Overcomes viral mutations that render current therapies ineffective

RELATED MATERIALS

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OTHER INFORMATION

CATEGORIZED AS

- **Medical**
  - Research Tools
  - Therapeutics
  - Vaccines

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