ACTIVATORS OF HUMAN VPS4

Tech ID: 33968 / UC Case 2025-105-0

PATENT STATUS

Patent Pending

BRIEF DESCRIPTION

Dysfunction in endosomal-lysosomal and autophagic activity is a critical factor in neurodegenerative disorders like Parkinson's and Alzheimer's Disease. This innovation, developed by UC Berkeley researchers, addresses this by providing compounds that act as activators of the AAA+ ATPases VPS4B, VPS4A, or both, which are key components of the ESCRT (Endosomal sorting complexes required for transport) pathways. The compounds are useful for both therapeutic intervention in these diseases and as essential research reagents, offering a unique mechanism to study the effect of ESCRT pathways in biological systems.

SUGGESTED USES

- Reducing symptoms of neurodegenerative disorders, such as Parkinson's Disease and Alzheimer's Disease, associated with endosomal-lysosomal and autophagic dysfunction.
- Serving as reagents for activating VPS4 activity in cells for biological and cellular research.
- Conducting studies of the effect of the ESCRT pathways in biological systems.

ADVANTAGES

- Provides novel compounds for activating VPS4B and/or VPS4A, addressing a need in treating neurodegenerative disorders.
- Offers a specific therapeutic approach to target the underlying dysfunction in endosomal-lysosomal and autophagic pathways in neurodegenerative diseases.
- The compounds are versatile, serving both as potential therapeutics and as valuable research tools.

RELATED MATERIALS

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OTHER INFORMATION

CATEGORIZED AS

» **Biotechnology**
» Health
» **Materials & Chemicals**
» Chemicals
» **Medical**
» Disease: Central Nervous System
» New Chemical Entities, Drug Leads
» Research Tools

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