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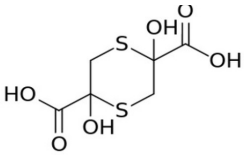
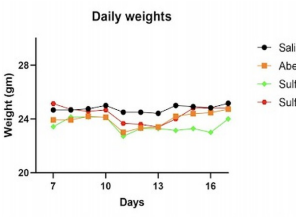
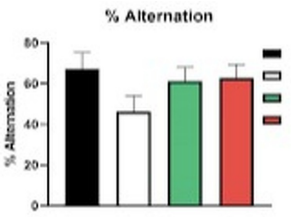
Use of sulfanegen and its analogs for prevention and treatment for neurodegenerative disorders

A 3-mercaptopyruvate prodrug, sulfanegen, that reduces neuroinflammation and oxidative stress for therapeutic use in neurodegenerative diseases.



Sulfanegen, $C_6H_8O_6S_2$;
M.Wt. 240.24





IP Status: Issued US Patent; **Issued Patent No.**11,925,623

Applications

- Alzheimer’s Disease
- Parkinson's Disease
- Huntington's Disease
- Cognitive Impairment
- Non-Alcoholic Fatty Liver Disease/Non-alcoholic steatohepatitis (NAFLD/NASH)
- Tylenol (acetaminophen) toxicity

Technology Overview

Sulfanegen is a prodrug of 3-mercaptopyruvic acid. Sulfanegen was studied for potential therapeutic benefit in Alzheimer's mouse models. In mice, sulfanegen at both doses 50 and 100 mg/kg showed a marked improvement in Alzheimer’s pathology and cognitive behavior pattern as determined by the T-maze spontaneous alternation.

Phase of Development

TRL: 3-4

In vitro neuroprotection studies and in vivo studies with biochemical and T-maze cognitive assessment tests have been conducted for sulfanegen. The researchers are currently evaluating the brain tissues of these mice for detailed mechanistic understanding of sulfanegen's neuroprotective action.

Desired Partnerships

This technology is now available for:

- License
- Sponsored research
- Co-development

Technology ID

2020-331

Category

Life Sciences/Biochemicals & Small Molecules
Life Sciences/Human Health
Life Sciences/Neuroscience
Life Sciences/Therapeutics

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Researchers

- **Robert Vince** Professor and Director, Center for Drug Design
- **Swati Sudhakar More** Associate Professor, Center for Drug Design

References

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