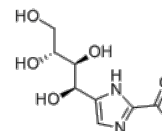


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<b>Product Name</b>	: SGPL1 inhibitor THI
<b>Cat. No.</b>	: PC-49430
<b>CAS No.</b>	: 94944-70-4
<b>Molecular Formula</b>	: C <sub>9</sub> H <sub>14</sub> N <sub>2</sub> O <sub>5</sub>
<b>Molecular Weight</b>	: 230.220
<b>Target</b>	: Other Targets
<b>Solubility</b>	: 10 mM in DMSO



## Biological Activity

2-acetyl-5-tetrahydroxybutyl imidazole (SGPL1 inhibitor THI) is a small molecule inhibitor of sphingosine-1-phosphate lyase (**SGPL1**) reduced cell apoptosis in different in vitro huntington's disease (HD) models.

THI mitigated motor dysfunctions in both mouse and fly models of HD.

THI evoked the activation of pro-survival pathways, normalized levels of brain-derived neurotrophic factor, preserved white matter integrity, and stimulated synaptic functions in HD mice.

THI restored normal levels of hexosylceramides and stimulated the autophagic and lysosomal machinery, facilitating the reduction of nuclear inclusions of both wild-type and mutant huntingtin proteins.

## References

Di Pardo A, et al. Sci Rep. 2017 Jul 13;7(1):5280.

Thomas A Vollmuth, et al. Food Chem Toxicol. 2018 Jan;111:578-596.

Giuseppe Pepe, et al. Mol Ther. 2022 Sep 16;S1525-0016(22)00558-5.

**Caution: Product has not been fully validated for medical applications. Lab Use Only!**

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