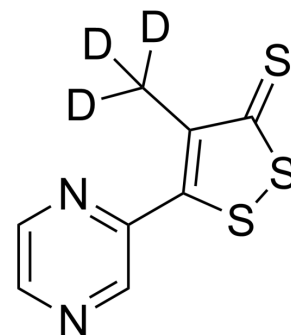


## Oltipraz-d<sub>3</sub>

<b>Cat. No.:</b>	HY-12519S
<b>CAS No.:</b>	2012598-51-3
<b>Molecular Formula:</b>	C <sub>8</sub> H <sub>3</sub> D <sub>3</sub> N <sub>2</sub> S <sub>3</sub>
<b>Molecular Weight:</b>	229.36
<b>Target:</b>	HIF/HIF Prolyl-Hydroxylase; HIV; Keap1-Nrf2; Isotope-Labeled Compounds
<b>Pathway:</b>	Metabolic Enzyme/Protease; Anti-infection; NF-κB; Others
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Oltipraz-d <sub>3</sub> is the deuterium labeled Oltipraz. Oltipraz has an inhibitory effect on HIF-1α activation in a time-dependent manner, completely abrogating HIF-1α induction at ≥10 μM concentrations, the IC <sub>50</sub> of Oltipraz for HIF-1α inhibition is 10 μM. Oltipraz is a potent Nrf2 activator.
<b>In Vitro</b>	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-216.
- [2]. Lee WH, et al. Oltipraz and dithiolethione congeners inhibit hypoxia-inducible factor-1α activity through p70 ribosomal S6 kinase-1 inhibition and H<sub>2</sub>O<sub>2</sub>-scavenging effect. *Mol Cancer Ther.* 2009 Oct;8(10):2791-802.
- [3]. Ramos-Gomez M, et al. Sensitivity to carcinogenesis is increased and chemoprotective efficacy of enzyme inducers is lost in nrf2 transcription factor-deficient mice. *Proc Natl Acad Sci U S A.* 2001 Mar 13;98(6):3410-5.
- [4]. Lv S, et al. Glucagon-induced extracellular cAMP regulates hepatic lipid metabolism. *J Endocrinol.* 2017 Aug;234(2):73-87.
- [5]. Eba S, et al. The nuclear factor erythroid 2-related factor 2 activator oltipraz attenuates chronic hypoxia-induced cardiopulmonary alterations in mice. *Am J Respir Cell Mol Biol.* 2013 Aug;49(2):324-33.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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