# Roxadustat-$d_5$

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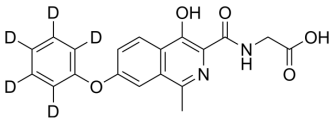
| **Cat. No.:** | HY-13426S |
| **CAS No.:** | 2043026-13-5 |
| **Molecular Formula:** | $C_{19}H_{11}D_5N_2O_5$ |
| **Molecular Weight:** | 357.37 |
| **Target:** | HIF/HIF Prolyl-Hydroxylase; Ferroptosis |
| **Pathway:** | Metabolic Enzyme/Protease; Apoptosis |
| **Storage:** | Please store the product under the recommended conditions in the Certificate of Analysis. |



## BIOLOGICAL ACTIVITY

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| **Description** | Roxadustat-$d_5$ is deuterium labeled Roxadustat. Roxadustat is an oral hypoxia-inducible factor prolyl-hydroxylase inhibitor (HIF-PHI) that promotes erythropoiesis through increasing endogenous erythropoietin, improving iron regulation, and reducing hepcidin[1]. |
| **In Vitro** | 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[1].<br>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]. Provenzano R, et al. Roxadustat (FG-4592) Versus Epoetin Alfa for Anemia in Patients Receiving MaintenanceHemodialysis: A Phase 2, Randomized, 6- to 19-Week, Open-Label, Active-Comparator, Dose-Ranging, Safety and Exploratory Efficacy Study. Am J Kidney Dis. 2016 Jun;67(6):912-24.

[3]. Wu K, et al. Stabilization of HIF-1α by FG-4592 promotes functional recovery and neural protection in experimental spinal cord injury. Brain Res. 2016 Feb 1;1632:19-26.



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