# Ticagrelor-$d_7$

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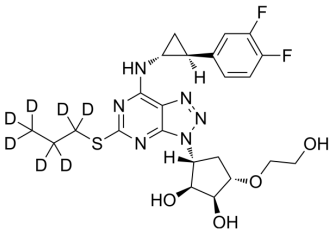
| **Cat. No.:** | HY-10064S |
| **CAS No.:** | 1265911-55-4 |
| **Molecular Formula:** | $C_{23}H_{21}D_7F_2N_6O_4S$ |
| **Molecular Weight:** | 529.61 |
| **Target:** | P2Y Receptor; Isotope-Labeled Compounds |
| **Pathway:** | GPCR/G Protein; Others |
| **Storage:** | Please store the product under the recommended conditions in the Certificate of Analysis. |



## BIOLOGICAL ACTIVITY

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| **Description** | Ticagrelor-$d_7$ is the deuterium labeled Ticagrelor. Ticagrelor (AZD6140) is a reversible oral P2Y12 receptor antagonist for the treatment of platelet aggregation[1][2]. |
| **$IC_{50}$ & Target** | P2Y12 Receptor |
| **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]. Aungraheeta R, et al. Inverse agonism at the P2Y12 receptor and ENT1 transporter blockade contribute to platelet inhibition by ticagrelor. Blood. 2016 Dec 8;128(23):2717-2728.

[3]. Gebremeskel S, et al. The reversible P2Y12 inhibitor ticagrelor inhibits metastasis and improves survival in mouse models of cancer. Int J Cancer. 2015 Jan 1;136(1):234-40.

[4]. Sugidachi A, et al. A comparison of the pharmacological profiles of prasugrel and ticagrelor assessed by platelet aggregation, thrombus formation and haemostasis in rats. Br J Pharmacol. 2013 May;169(1):82-9.



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