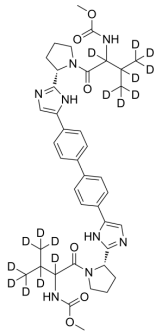
Daclatasvir-d_{16}

Cat. No.:	HY-10466S2
Molecular Formula:	$C_{40}H_{34}D_{16}N_8O_6$
Molecular Weight:	754.97
Target:	HCV; Isotope-Labeled Compounds
Pathway:	Anti-infection; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Daclatasvir-d_{16} is deuterium labeled Daclatasvir. Daclatasvir (BMS-790052) is a potent and orally active HCV NS5A protein inhibitor with EC50s range of 9-146 pM for multiple HCV replicon genotypes. Daclatasvir is also a organic anion transporting polypeptide 1B (OATP1B) and OATP1B3 inhibitor with IC50s of 1.5 μM and 3.27 μM, respectively[1][2][3].
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]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. David B Ascher, et al. Potent hepatitis C inhibitors bind directly to NS5A and reduce its affinity for RNA. Sci Rep. 2014 Apr 23;4:4765.

[2]. Min Gao, et al. Chemical genetics strategy identifies an HCV NS5A inhibitor with a potent clinical effect. Nature. 2010 May 6;465(7294):96-100.

[3]. Seung-Hoon Lee, et al. HA1077 displays synergistic activity with daclatasvir against hepatitis C virus and suppresses the emergence of NS5A resistance-associated substitutions in mice. Sci Rep. 2018 Aug 20;8(1):12469.

[4]. Tomomi Furihata, et al. Different interaction profiles of direct-acting anti-hepatitis C virus agents with human organic anion transporting polypeptides. Antimicrob Agents Chemother. 2014 Aug;58(8):4555-64.

[5]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-216.

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