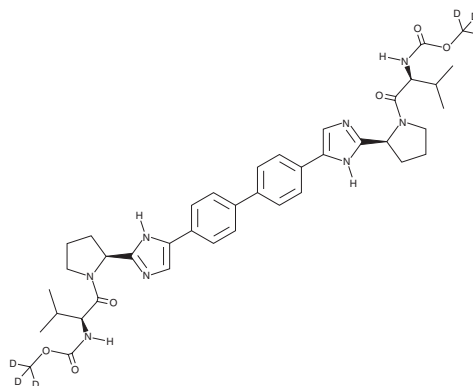


PRODUCT INFORMATION



Daclatasvir-d₆ Item No. 29077

CAS Registry No.: 1801709-41-0
Formal Name: N,N'-[[1,1'-biphenyl]-4,4'-diylbis[1H-imidazole-5,2-diyl-(2S)-2,1-pyrrolidinediyl[(1S)-1-(1-methylethyl)-2-oxo-2,1-ethanediy]]]]bis-carbamic acid, C,C'-di(methyl-d₃) ester
MF: C₄₀H₄₄D₆N₈O₆
FW: 744.9
Chemical Purity: ≥95% (Daclatasvir)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₆); ≤1% d₀
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Daclatasvir-d₆ is intended for use as an internal standard for the quantification of daclatasvir (Item No. 23730) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Daclatasvir-d₆ is supplied as a solid. A stock solution may be made by dissolving the daclatasvir-d₆ in the solvent of choice, which should be purged with an inert gas. Daclatasvir-d₆ is soluble in organic solvents such as methanol and DMSO.

Description

Daclatasvir is a first generation direct-acting inhibitor of hepatitis C virus (HCV) non-structural protein 5A (NS5A; K_ds = 8 and 210 nM for the NS5A³³⁻²⁰² and NS5A²⁶⁻²⁰² residues of HCV genotype 1b, respectively).^{1,2} It potently inhibits HCV replication in multiple HCV replicon genotypes (EC₅₀s = 9-146 pM) with the highest potency in genotypes 1b and 4a (EC₅₀s = 9 and 12 pM, respectively).¹ Daclatasvir disrupts the subcellular localization of NS5A in Huh7.5 cells and inhibits viral RNA synthesis and virion assembly and secretion when used at a concentration of 1 nM in HCV-infected Huh7 cells.^{3,4} Daclatasvir also inhibits organic anion transport polypeptides 1B1 (OAT1B1) and OAT1B3 (IC₅₀s = 1.5 and 3.27 μM, respectively).⁵ Formulations containing daclatasvir have been used alone and in combination with NS3/4A and NS5B inhibitors in the treatment of HCV.

References

1. Gao, M., Nettles, R.E., Belema, M., et al. *Nature* **465**(7294), 96-100 (2010).
2. Ascher, D.B., Wielens, J., Nero, T.L., et al. *Sci. Rep.* **4**, 4765 (2014).
3. Lee, C., Ma, H., Hang, J.Q., et al. *Virology* **414**(1), 10-18 (2011).
4. Guedj, J., Dahari, H., Rong, L., et al. *Proc. Nat. Acad. Sci. USA* **110**(10), 3991-3996 (2013).
5. Furihata, T., Matsumoto, S., Fu, Z., et al. *Antimicrob. Agents Chemother.* **58**(8), 4555-4565 (2014).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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