
Product Data Sheet

Product Name: Vaniprevir

Cat. No.: GC10155

Chemical Properties

Cas. No. 923590-37-8

SMILES CCC1CC1(NC(C2CC3CN2C(C(C(C)(C)C)NC(OCC(C)(C)CCCCC4=C5CN(C(O3)=O)CC5=CC=C4)=O)=O)=O)C(NS(=O)(C6CC6)=O)=O

Formula C₃₈H₅₅N₅O₉S M.Wt 757.94

Solubility Soluble in DMSO Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure **Background**

Vaniprevir (MK-7009) is a non-covalent competitive inhibitor of the hepatitis C virus (HCV) NS3/4A protease. IC₅₀ Value: Target: HCV NS3/4A Protease; HCVvaniprevir (MK-7009) is a macrocyclic hepatitis C virus NS3/4a protease inhibitor, is active against both the genotype 1 and genotype 2 NS3/4a protease enzymes. vaniprevir (MK-7009) has good plasma exposure and excellent liver exposure in multiple species.

References:

[1]. Liverton, Nigel J.; Carroll, Steven S.; Di Muzio, Jillian;.MK-7009, a potent and selective inhibitor of hepatitis C virus NS3/4A protease. Antimicrobial Agents and Chemotherapy (2009), Volume Date 2010, 54(1), 305-311.

[2]. Kong J, Chen CY, Balsells-Padros J, Cao Y, Dunn RF, Dolman SJ, Janey J, Li H, Zacuto MJ. Synthesis of the HCV protease inhibitor Vaniprevir (MK-7009) using ring-closing metathesis strategy. J Org Chem. 2012 Apr 20;77(8):3820-8. Epub 2012 Apr 10.

[3]. Manns MP, Gane E, Rodriguez-Torres M, Stoehr A, Yeh CT, Marcellin P, Wiedmann RT, Hwang PM, Caro L, Barnard RJ, Lee AW; for the MK-7009 Protocol 007 Study

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

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Group. Vaniprevir with pegylated interferon alpha-2a and ribavirin in treatment-naïve patients with chronic hepatitis C: A randomized phase II study. *Hepatology*. 2012 Sep;56(3):884-893.

[4]. Song ZJ, Tellers DM, Journet M, Kuethe JT, Lieberman D, Humphrey G, Zhang F, Peng Z, Waters MS, Zewge D, Nolting A, Zhao D, Reamer RA, Dormer PG, Belyk KM, Davies IW, Devine PN, Tschaen DM. Synthesis of vaniprevir (MK-7009): lactamization to prepare a 20-membered [corrected] macrocycle. *J Org Chem*. 2011 Oct 7;76(19):7804-15. Epub 2011 Aug 31.

[5]. McCauley JA, McIntyre CJ, Rudd MT, Nguyen KT, Romano JJ, Butcher JW, Gilbert KF, Bush KJ, Holloway MK, Swestock J, Wan BL, Carroll SS, DiMuzio JM, Graham DJ, Ludmerer SW, Mao SS, Stahlhut MW, Fandozzi CM, Trainor N, Olsen DB, Vacca JP, Liverton NJ. Discovery of vaniprevir (MK-7009), a macrocyclic hepatitis C virus NS3/4a protease inhibitor. *J Med Chem*. 2010 Mar 25;53(6):2443-63.

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