

Product Data Sheet

Product Name: Ipragliflozin L-Proline

Cat. No.: GC36326

Chemical Properties

Cas. No. 951382-34-6

SMILES FC1=CC=C([C@H]2[C@H](O)[C@@H](O)[C@H](O)[C@@H](CO)O2)C=C1CC3=CC(C=CC=C4=C4S3.O=C(O)[C@H]5NCCCC5

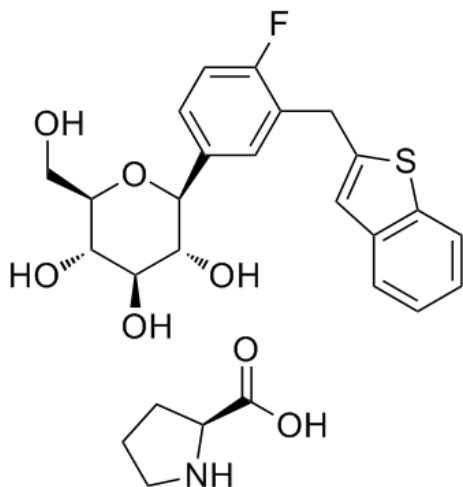
Formula $C_{26}H_{30}FNO_7S$ M.Wt 519.58

Solubility DMSO : 35mg/mL 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

Ipragliflozin (L-Proline) is a highly potent and selective SGLT2 inhibitor with an IC₅₀ of 2.8 nM; little

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

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and NO potency for SGLT1/3/4/5/6. IC50 value: 2.8 nM (SGLT2)[1][2].

Ipragliflozin (L-Proline) potently and selectively inhibits human, rat, and mouse SGLT2 at nanomolar ranges and exhibits stability against intestinal glucosidases[3].

Ipragliflozin (L-Proline) shows good pharmacokinetic properties following oral dosing, and dose-dependently increases urinary glucose excretion, which lasts for over 12 h in normal mice [3]. Oral administration of ipragliflozin increases urinary glucose excretion in a dose-dependent manner, an effect which is significant at doses of 0.3 mg/kg or higher and lasts over 12 h[4]. Single administration of ipragliflozin dose-dependently increases urinary glucose excretion, reduces blood glucose and plasma insulin levels, and improves glucose intolerance [5].

[1]. Imamura M, et al. Discovery of Ipragliflozin (ASP1941): a novel C-glucoside with benzothiophene structure as a potent and selective sodium glucose co-transporter 2 (SGLT2) inhibitor for the treatment of type 2 diabetes mellitus. *Bioorg Med Chem*. 2012 May 15;20(10):3263-79. [2]. Suzuki M, et al. Tofogliflozin, a potent and highly specific sodium/glucose cotransporter 2 inhibitor, improves glycemic control in diabetic rats and mice. *J Pharmacol Exp Ther*. 2012 Jun;341(3):692-701. [3]. Tahara A, et al. Pharmacological profile of ipragliflozin (ASP1941), a novel selective SGLT2 inhibitor, in vitro and in vivo. *Naunyn Schmiedebergs Arch Pharmacol*. 2012 Apr;385(4):423-36. [4]. Tahara A, et al. Antidiabetic effects of SGLT2-selective inhibitor ipragliflozin in streptozotocin-nicotinamide-induced mildly diabetic mice. *J Pharmacol Sci*. 2012;120(1):36-44. [5]. Tahara A, et al. Effects of SGLT2 selective inhibitor ipragliflozin on hyperglycemia, hyperlipidemia, hepatic steatosis, oxidative stress, inflammation, and obesity in type 2 diabetic mice. *Eur J Pharmacol*. 2013 Sep 5;715(1-3):246-55.

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