

Product Specification Sheet

Product Name: BMS-512148 (Dapagliflozin)

Catalog Number: C2512

Technical information:

Chemical Formula: $C_{21}H_{25}ClO_6$

CAS #: 461432-26-8

Molecular Weight: 408.87

Purity: > 98%

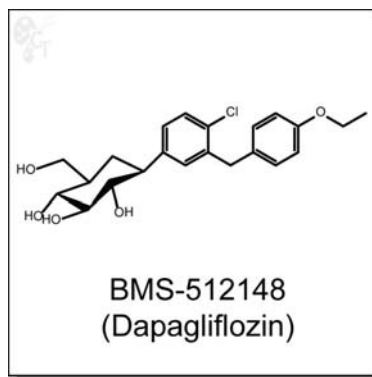
Appearance: White solid

Solubility: Soluble in DMSO up to 100 mM

Chemical Name: (2S,3R,4R,5S,6R)-2-(3-(4-ethoxybenzyl)-4-chlorophenyl)-6-(hydroxymethyl)-tetrahydro-2H-pyran-3,4,5-triol

Storage: Store solid powder at 4°C desiccated; Store DMSO solution at -20°C.

Shelf Life: In the unopened package, powder is stable for 1 year and DMSO solution is stable for 6 months under proper storage condition.



- Handling:**
- To make 10 mM stock solution, add 0.245mL of DMSO for each mg of BMS-512148 (Dapagliflozin)
 - For DMSO solution, briefly spin the vial at 500 rpm in a 50 mL conical tube to ensure maximum sample recovery.

Biological Activity: Dapagliflozin (BMS-512148) is an orally-available C-aryl glucoside diphenylmethanol inhibitor of SGLT2 (IC₅₀ 1.1 nM) for the treatment of Type 1 and Type 2 diabetes. It is the first approved SGLT2 inhibitor (European Union as Forxiga) for the treatment of diabetes. Its excellent selectivity over SGLT1 (IC₅₀ 1390 nM) ensures that it does not interfere with intestinal glucose absorption. Dapagliflozin minimally inhibits glucose transporters GLUT1 and GLUT2 and modestly inhibits GLUT4. [1]

Dapagliflozin removes excess glucose and its associated calories in urine, which in turn reduces blood sugar levels. Clinical studies have shown concurrent reductions in weight and blood pressure. [2] In combination with metformin, the weight loss was statistically significant, dose-dependent, and persisted for over two years. [3]

- Reference:**
1. Shah et al., Dapagliflozin: a novel sodium-glucose cotransporter type 2 inhibitor for the treatment of type 2 diabetes mellitus. *Pharmacotherapy* 2012, 32(1), 80-94. Pubmed ID: 22392830
 2. AstraZeneca website:
<http://www.astrazeneca.com/Media/Press-releases/Article/20121114--forxiga-eu-approval-type-2-diabetes>
 3. Chao et al., Dapagliflozin: an evidence-based review of its potential in the treatment of type-2 diabetes. *Core Evidence* 2012, 7, 21-28. Pubmed ID: 22701099

To reorder: <http://www.cellagentech.com/BMS-512148-Dapagliflozin/>
For Technical Support: technical@cellagentech.com

Chemicals are sold for research use only, not for clinical or diagnostic use.