**Product Information**

**Canagliflozin**

*Item No. 11575*

**CAS Registry No.:** 842133-18-0  
**Formal Name:** (1S)-1,5-anhydro-1-C-[3-[5-(4-fluorophenyl)-2-thienyl[methyl]-4-methylphenyl]-D-glucitol  
**Synonyms:** JNJ-24831754, TA-7284  
**MF:** C_{24}H_{25}FO_{5}S  
**FW:** 444.5  
**Purity:** ≥98%  
**UV/Vis.:** λ_{max}: 288, 291 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly

### Laboratory Procedures

Canagliflozin is supplied as a crystalline solid. A stock solution may be made by dissolving the canagliflozin in the solvent of choice. Canagliflozin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of canagliflozin in these solvents is approximately 30 mg/ml.

Canagliflozin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, canagliflozin should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Canagliflozin has a solubility of approximately 0.125 mg/ml in a 1:7 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Canagliflozin is an inhibitor of sodium-glucose cotransporter 2 (SGLT2; IC_{50} = 2.2 nM) that less potently blocks SGLT1 (IC_{50} = 910 nM). Canagliflozin is orally bioavailable and lowers plasma glucose by lowering the renal threshold for glucose and increasing urinary glucose excretion in animals. Formulations containing SGLT2 inhibitors, including canagliflozin, are used to treat type 2 diabetes mellitus.

### References