

## Product Specification Sheet

**Product Name:** BMS-477118 (Saxagliptin)

**Catalog Number:** C2477

**Technical information:**

Chemical Formula:  $C_{18}H_{25}N_3O_2$

CAS #: 361442-04-8

Molecular Weight: 315.41

Purity: > 98%

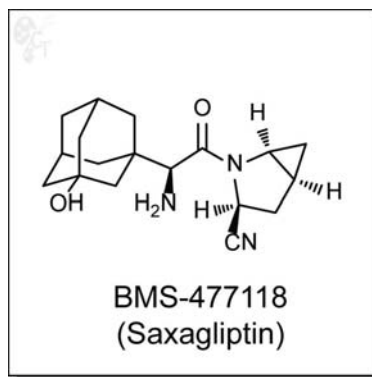
Appearance: White solid

Solubility: Soluble in DMSO up to 22 mM

Chemical Name: (1S,3S,5S)-2-[(2S)-2-amino-2-(3-hydroxy-1-adamantyl)acetyl]-2-azabicyclo[3.1.0]hexane-3-carbonitrile

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 0.317mL of DMSO for each mg of BMS-477118 (Saxagliptin)
  - For DMSO solution, briefly spin the vial at 500 rpm in a 50 mL conical tube to ensure maximum sample recovery.

**Biological Activity:** Saxagliptin is an orally-available, adamantyl-based, reversible inhibitor of DPP-IV for the treatment of Type 2 diabetes with an IC50 of 26 nM and Ki of 0.6-1.3 nM [1, 2]. Saxagliptin is more selective than other approved DPP-IV inhibitors (vildagliptin, sitagliptin) and is 400-fold and 75-fold selective over DPP-VIII and DPP-IX, respectively. [1] Once-daily administration of saxagliptin either as a monotherapy or in combination results in a significant reductions in fasting and postprandial plasma glucose and HbA1c.

Saxagliptin reduces the degradation of the incretin hormone glucagon-like peptide-1, improving b-cell function and suppression of glucagon secretion. [2]

- Reference:**
1. Tahrani et al., Saxagliptin: a new DPP-4 inhibitor for the treatment of type 2 diabetes mellitus. Adv. Ther. 2009, 26(3), 249-262. Pubmed ID: 19330494
  2. Deacon et al., Saxagliptin: a new dipeptidyl peptidase-4 inhibitor for the treatment of type 2 diabetes. Adv. Ther. 2009, 26(5), 488-499. Pubmed ID: 19444391

To reorder: <http://www.cellagentech.com/BMS-477118-Saxagliptin/>

For Technical Support: [technical@cellagentech.com](mailto:technical@cellagentech.com)

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