Product Data Sheet

# YO-01027 (Dibenzazepine, DBZ)

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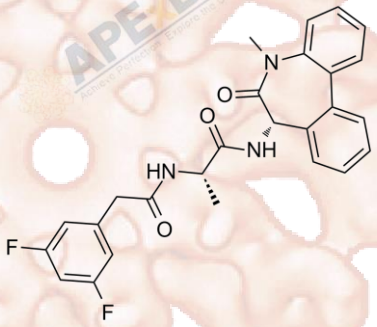
| **Cat. No.:** | A4018 |
| **CAS No.:** | 209984-56-5 |
| **Formula:** | C26H23F2N3O3 |
| **M.Wt:** | 463.48 |
| **Synonyms:** | gamma-Secretase Inhibitor XX,YO01027 |
| **Target:** | Proteases |
| **Pathway:** | Gamma Secretase |
| **Storage:** | Store at -20°C |




## Solvent & Solubility

In Vitro

≥23.17 mg/mL in DMSO; insoluble in H2O; ≥4.13 mg/mL in EtOH with gentle warming and ultrasonic

Preparing Stock Solutions

| Concentration \ Mass / Solvent | 1mg | 5mg | 10mg |
|---|---|---|---|
| **1 mM** | 2.1576 mL | 10.7880 mL | 21.5759 mL |
| **5 mM** | 0.4315 mL | 2.1576 mL | 4.3152 mL |
| **10 mM** | 0.2158 mL | 1.0788 mL | 2.1576 mL |

Please refer to the solubility information to select the appropriate solvent.

## Biological Activity

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| Shortsummary | γ -secretase inhibitor |
| $IC_{50}$ & Target | 2.6 nM (APPL), 2.9 nM (Notch) |

In Vitro

**Cell Viability Assay**

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| Cell Line: | Breast cancer stem cells (BCSCs) |
| Preparation method: | The solubility of this compound in DMSO is >10 mM. General tips for obtaining a higher concentration: Please warm the tube at 37°C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months. |
| Reacting conditions: | 10 μM; 3 days |

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| | Applications: | YO-01027 (10 μM) reduced BCSC number and activity. |
| In Vivo | **Animal experiment** | |
| | Animal models: | C57BL/6 mice |
| | Dosage form: | 0, 3, 10 and 30 μmol/kg; i.p.; q.d., for 5 days |
| | Applications: | In C57BL/6 mice, YO-01027 treatment inhibited epithelial cell proliferation and induced goblet cell differentiation in intestinal adenomas in a dose-dependent manner. |
| | Other notes: | Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal. |

## Product Citations

1. Idowu J, Home T, et al. "Aberrant Regulation of Notch3 Signaling Pathway inPolycystic Kidney Disease." Sci Rep. 2018 Feb 20;8(1):3340.PMID:29463793

**See more customer validations on www.apexbt.com.**

## References


[1]. Casper Groth, W. Gregory Alvord, Octavio A. Quinones, and Mark E. Fortini. Pharmacological analysis of drosphila melanogaster γ-secretase with respect to differential proteolysis of Notch and APP. Mol. Pharmacol. 2010, 77(4), 567-574.

[2]. Harrison H, Farnie G, Howell SJ, Rock RE, Stylianou S, Brennan KR, Bundred NJ, Clarke RB. Regulation of breast cancer stem cell activity by signaling through the Notch4 receptor. Cancer Res. 2010 Jan 15;70(2):709-18.

[3]. van Es JH, van Gijn ME, Riccio O, van den Born M, Vooijs M, Begthel H, Cozijnsen M, Robine S, Winton DJ, Radtke F, Clevers H. Notch/gamma-secretase inhibition turns proliferative cells in intestinal crypts and adenomas into goblet cells. Nature. 2005 Jun 16;435(7044):959-63.


## Caution

**FOR RESEARCH PURPOSES ONLY.**

**NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

*Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.*

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