

Product Specification Sheet

Product Name: YO-01027 (Dibenzazepine)

Catalog Number: C9601

Technical information:

Chemical Formula: $C_{26}H_{23}F_2N_3O_3$

CAS #: 209984-56-5

Molecular Weight: 463.48

Purity: > 98%

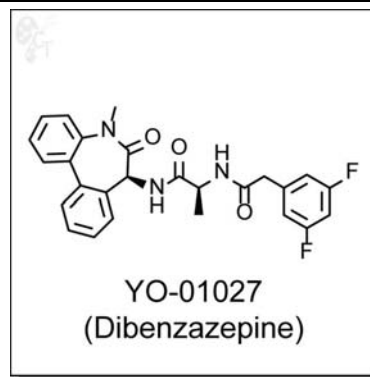
Appearance: White solid

Solubility: Soluble in DMSO up to 100 mM

Chemical Name: 7-(S)-[N'(3,5-difluorophenylacetyl)-L-alaninyl]amino-5-methyl-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

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 0.216mL of DMSO for each mg of YO-01027 (Dibenzazepine).
 - For DMSO solution, briefly spin the vial at 500 rpm in a 50 mL conical tube to ensure maximum sample recovery.

Biological Activity: YO-01027 (Dibenzazepine, DBZ) is a dipeptidic g-secretase inhibitor with IC₅₀ of 2.6 and 2.9 nM for APPL and Notch, respectively. YO-01027 targets the Presenilin fragment. Increasing concentrations of YO-01027 administered to APPI- or Notch-expressing cells leads to the progressive accumulation of APPL C-terminal fragments and a decrease in NICD production in a dose-dependent manner. [1]

In an in vitro model of human corneal and conjunctival epithelial cell differentiation, YO-01027 impaired MUC16 biosynthesis in a concentration-dependent manner. [2]

In oncology models, YO-01027 preferentially inhibited Notch and significantly decreased MCF7 tumors and increased latency compared with control mice. [3]

- Reference:**
1. Groth et al., Pharmacological Analysis of *Drosophila melanogaster* g-Secretase with Respect to Differential Proteolysis of Notch and APP. *Mol. Pharmacol.* 2010, 77(4), 567-574. Pubmed ID: 20064975
 2. Xiong et al., Notch Signaling Modulates MUC16 Biosynthesis in an In Vitro Model of Human Corneal and Conjunctival Epithelial Cell Differentiation. *Invest. Ophthalmol. Vis. Sci.* 2011, 52(8), 5641-5646. Pubmed ID: 21508102
 3. Harrison et al., Regulation of Breast Cancer Stem Cell Activity by Signaling through the Notch4 Receptor. *Cancer Res.*, 2010, 70, 709-718. Pubmed ID: 20068161

To reorder: <http://www.cellagentech.com/YO-01027-Dibenzazepine/>

For Technical Support: technical@cellagentech.com

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