

YTX-465

## Chemical Properties

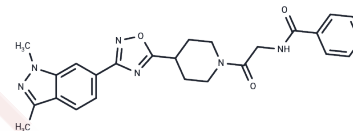
CAS No. : 2225824-53-1

Formula: C<sub>25</sub>H<sub>26</sub>N<sub>6</sub>O<sub>3</sub>

Molecular Weight: 458.51

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



## Biological Description

|                            |  |
|----------------------------|--|
| Description                | YTX-465 is an inhibitor of both stearoyl-CoA desaturase (IC <sub>50</sub> s = 39 nM) and Ole1 (IC <sub>50</sub> s = 30.4 μM).  |
| Targets(IC <sub>50</sub> ) | Stearoyl-CoA Desaturase (SCD)  |
| In vitro                   | YTX-465 rescued growth to a similar magnitude but was >100-fold more potent than YTX-528 (EC <sub>50</sub> = 0.013 μM). Kinetic growth studies demonstrated that the most effective concentration of YTX-465 (0.050 μM) restored growth rates to that of approximately 40% of the wild-type strain treated with the same concentration of YTX-465[1]. In wild-type yeast, YTX-465 strongly reduced fatty desaturation in a concentration-dependent manner, with a 50% reduction in desaturation at 0.03 μM YTX-465[1]. |

## Solubility Information

|                     |   |
|---------------------|---|
| Solubility          | DMSO: 50 mg/mL (109.05 mM), Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble)   |
| In vivo Formulation | 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (4.36 mM), Sonication is recommended.<br><i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i> |

### Preparing Stock Solutions

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|       | <b>1mg</b> | <b>5mg</b> | <b>10mg</b> |
|-------|------------|------------|-------------|
| 1 mM  | 2.181 mL   | 10.9049 mL | 21.8098 mL  |
| 5 mM  | 0.4362 mL  | 2.181 mL   | 4.362 mL    |
| 10 mM | 0.2181 mL  | 1.0905 mL  | 2.181 mL    |
| 50 mM | 0.0436 mL  | 0.2181 mL  | 0.4362 mL   |

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Vincent BM, et al. Inhibiting Stearoyl-CoA Desaturase Ameliorates  $\alpha$ -Synuclein Cytotoxicity. Cell Rep. 2018 Dec 4;25 (10):2742-2754.e31.

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