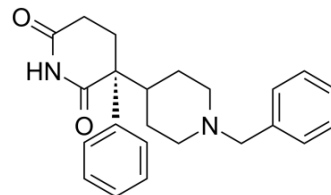


## Dexetimide

|                    |   |       |          |
|--------------------|---|-------|----------|
| Cat. No.:          | HY-105545   |       |          |
| CAS No.:           | 21888-98-2  |       |          |
| Molecular Formula: | C <sub>23</sub> H <sub>26</sub> N <sub>2</sub> O <sub>2</sub> |       |          |
| Molecular Weight:  | 362.46  |       |          |
| Target:            | mAChR   |       |          |
| Pathway:           | GPCR/G Protein; Neuronal Signaling                            |       |          |
| Storage:           | Powder  | -20°C | 3 years  |
|                    |   | 4°C   | 2 years  |
|                    | In solvent  | -80°C | 6 months |
|                    |   | -20°C | 1 month  |



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : ≥ 100 mg/mL (275.89 mM)  
 \* "≥" means soluble, but saturation unknown.

| Preparing Stock Solutions | Solvent Concentration | Mass      |            |            |
|---------------------------|-----------------------|-----------|------------|------------|
|                           |                       | 1 mg      | 5 mg       | 10 mg      |
|                           | 1 mM                  | 2.7589 mL | 13.7946 mL | 27.5893 mL |
|                           | 5 mM                  | 0.5518 mL | 2.7589 mL  | 5.5179 mL  |
|                           | 10 mM                 | 0.2759 mL | 1.3795 mL  | 2.7589 mL  |

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

#### In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
 Solubility: ≥ 5 mg/mL (13.79 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
 Solubility: ≥ 5 mg/mL (13.79 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
 Solubility: ≥ 5 mg/mL (13.79 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Dexetimide ((+)-Benzetimide) is a high-affinity muscarinic receptor antagonist and a potent and persistent anticholinergic agent used to treat neuroleptic-induced parkinsonism<sup>[1]</sup>.

### REFERENCES

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[1]. Speck AL, et al. The absolute configuration and crystal structure of the anticholinergic drug dexbenzetimide. Nature. 1971 Aug 20;232(5312):575-6.

[2]. Müller-Gärtner HW, et al. Imaging muscarinic cholinergic receptors in human brain in vivo with Spect, [<sup>123</sup>I]4-iododexetimide, and [<sup>123</sup>I]4-iodolevetimide. J Cereb Blood Flow Metab. 1992 Jul;12(4):562-70.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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