# Dihydroergotoxine mesylate

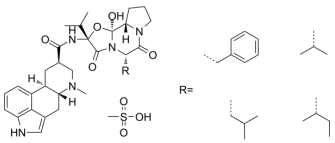
**Cat. No.:** HY-B0799

**CAS No.:** 8067-24-1

**Target:** GABA Receptor

**Pathway:** Membrane Transporter/Ion Channel; Neuronal Signaling

**Storage:** 4°C, sealed storage, away from moisture
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



## SOLVENT & SOLUBILITY

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| **In Vitro** | DMSO : ≥ 100 mg/mL<br>$H_2O$ : 2 mg/mL (Need ultrasonic)<br>* "≥" means soluble, but saturation unknown. |
| **In Vivo** | 1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline<br>Solubility: ≥ 2.08 mg/mL (Infinity mM); Clear solution<br>2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)<br>Solubility: ≥ 2.08 mg/mL (Infinity mM); Clear solution<br>3. Add each solvent one by one: 10% DMSO >> 90% corn oil<br>Solubility: ≥ 2.08 mg/mL (Infinity mM); Clear solution |

## BIOLOGICAL ACTIVITY

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| **Description** | Dihydroergotoxine mesylate is a complex of closely related alkaloid salts; Binds with high affinity to the GABAA receptor Cl-channel, producing an allosteric interaction with the benzodiazepine site.IC50 value:Target: Dihydroergotoxine mesylate also interacts with central dopaminergic, serotonergic and adrenergic (α1) receptors. Dihydroergotoxine mesylate displays antiproliferative activity in vitro (IC50 = 18 - 38 μM in prostate cancer cells) and exhibits cognition-enhancing, anticonvulsant and sedative activity in vivo. |

## REFERENCES

[1]. Tvrdeic A, et al. Dihydrogenated ergot compounds bind with high affinity to GABAA receptor-associated Cl- ionophore. Eur J Pharmacol. 1991 Sep 4;202(1):109-11.

[2]. Tvrdeic A, et al. Dihydroergotoxine modulation of the GABAA receptor-associated Cl- ionophore in mouse brain. Eur J Pharmacol. 1992 Oct 6;221(1):139-43.

[3]. Tvrdeic A, et al. Effect of ergot alkaloids on 3H-flunitrazepam binding to mouse brain GABAA receptors. Coll Antropol. 2003;27 Suppl 1:175-82.

[4]. Abdul M, et al. Expression of gamma-aminobutyric acid receptor (subtype A) in prostate cancer. Acta Oncol. 2008;47(8):1546-50.

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

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