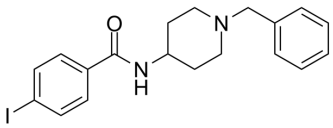
4-IBP

Cat. No.:	HY-100155
CAS No.:	155798-08-6
Molecular Formula:	$C_{19}H_{21}IN_2O$
Molecular Weight:	420.29
Target:	Sigma Receptor
Pathway:	Neuronal Signaling
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 2 years -20°C 1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (237.93 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.3793 mL	11.8965 mL	23.7931 mL
	5 mM	0.4759 mL	2.3793 mL	4.7586 mL
	10 mM	0.2379 mL	1.1897 mL	2.3793 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (5.95 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2 mg/mL (4.76 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

4-IBP is a selective σ1 agonist with a high level of affinity for the σ1 receptor (Ki = 1.7 nM) and a moderate affinity for the σ2 receptor (Ki = 25.2 nM) .IC50 value: 1.7 nM (Ki)Target: σ1in vitro: 4-IBP is a σ1 receptor agonist, decreases the migration of human cancer cells, including glioblastoma cells. 4-IBP is used to investigate whether targeting theσ1 receptor could modify in vitro the migration rates of human cancer cells and increase the sensitivity of metastasizing human A549 NSCLC cells and infiltrating human glioblastoma cells to cytotoxic insults of either proapoptotic or proautophagic drugs.[1]in vivo: 4-IBP increases the antitumor effects of temozolomide and irinotecan in immunodeficient mice that were orthotopically grafted with invasive cancer cells.[1]

REFERENCES

[1]. Mégalizzi V, et al. 4-IBP, a sigma1 receptor agonist, decreases the migration of human cancer cells, including glioblastoma cells, in vitro and sensitizes them in vitro and in vivo to cytotoxic insults of proapoptotic and proautophagic drugs. Neoplasia. 2

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