

Data Sheet

Product Name: Atipamezole (hydrochloride)

Cat. No.:CS-3389CAS No.:104075-48-1Molecular Formula: $C_{14}H_{17}CIN_2$ Molecular Weight:248.75

Target: Adrenergic Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

Solubility: DMSO : \geq 47 mg/mL;H₂O : 75 mg/mL (ultrasonic;warming)

HN

H-CI

BIOLOGICAL ACTIVITY:

Atipamezole (MPV-1248) hydrochloride is a potent α_2 -adrenoceptor antagonist with a K_i of 1.6 nM^[1]. IC50 & Target: Ki: 1.6 nM^[1] *In Vitro:* The affinity of atipamezole for α_2 -adrenoceptors and its α_2/α_1 selectivity ratio are considerably higher than yohimbine. Atipamezole is not selective for subtypes of α_2 -adrenoceptors. It has negligible affinity for 5-HT₁, 5-HT2 and I2 bindings sites^[1]. *In Vivo:* Atipamezole is well tolerated in rodents. In anesthetized, normotensive rats, the cardiovascular effects of atipamezole (0.01–1 mg/kg, i.v.) are rather modest. Atipamezole is commonly used by veterinarians to awaken animals from sedation or anesthesia. Atipamezole increases sexual activity in rats and monkeys. In animals with sustained nociception, atipamezole increases pain-related responses by blocking the noradrenergic feedback inhibition of pain. Atipamezole at low doses has beneficial effects on alertness, selective attention, planning, learning, and recall in experimental animals, but not necessarily on short-term working memory^[1].

References:

[1]. Pertovaara A, et al. Pharmacological properties, central nervous system effects, and potential therapeutic applications of atipamezole, a selective alpha2-adrenoceptor antagonist. CNS Drug Rev. 2005 Autumn;11(3):273-88.

CAIndexNames:

1H-Imidazole, 5-(2-ethyl-2,3-dihydro-1H-inden-2-yl)-, hydrochloride (1:1)

SMILES:

CCC1(C2=CN=CN2)CC3=C(C=CC=C3)C1.[H]CI

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

Tel: 610-426-3128 Fax: 888-484-5008 E-mail: sales@ChemScene.com

Address: 1 Deer Park Dr., Suite Q., Monmouth Junction, NJ 08852, USA

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