

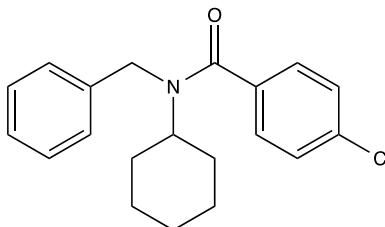
Catalog # 10-4616

FPS-ZM1

CAS# 945714-67-0

4-Chloro-N-cyclohexyl-N-(phenylmethyl)benzamide

Lot # FBA4166



FPS-ZM1 is a high-affinity RAGE (Receptor for Advanced Glycation End products) receptor antagonist (IC₅₀ = 0.6 μM). It lowers levels of Aβ *via* binding to the V domain of RAGE and can block multiple mechanisms of Aβ₄₀- and Aβ₄₂-induced cellular stress in RAGE-expressing brain endothelium, neurons and microglia *in vitro* and *in vivo*.^{1,2} Can cross the BBB. In a rat model of intracerebral hemorrhage, FPS-ZM1 was able to attenuate blood-brain barrier and white matter fiber damage.³ FPS-ZM1 antagonism of RAGE was able to ameliorate inflammatory damage after acute intracerebral hemorrhage *via* downstream blockade of high mobility box-1(HMGB1) signaling.⁴ FPS-ZM1 has also been shown to impair breast cancer cell invasion and metastasis.⁵

- 1) Deans *et al.* (2012), *A multimodal RAGE-specific inhibitor reduces amyloid β-mediated brain disorder in a mouse model of Alzheimer disease*; J.Clin.Invest. **122** 1377
- 2) Hong *et al.* (2016), *Effects of RAGE-Specific Inhibitor FPS-ZM1 on Amyloid-β Metabolism and AGEs-Induced Inflammation and Oxidative Stress in Rat Hippocampus* ; Neurochem.Res. **41** 1192
- 3) Yang *et al.* (2015), *Receptor for advanced glycation end-product antagonist reduces blood-brain barrier damage after intracerebral hemorrhage*; Stroke **46** 1328
- 4) Li *et al.* (2015), *Blockade of high mobility box-1 signaling via the receptor for advanced end-products ameliorates inflammatory damage after acute intracerebral hemorrhage*; Neurosci.Lett. **609** 109
- 5) Kwak *et al.* (2017), *Targeting of RAGE-ligand signaling impairs breast cancer cell invasion and metastasis*; Oncogene **36** 1559

PHYSICAL DATA

Molecular Weight:	337.58
Molecular Formula:	C ₂₀ H ₂₂ ClO
Purity:	>98% by HPLC
	NMR: Conforms
	High Res MS: Conforms
Solubility:	DMSO (35 mg/mL) and ethanol (20 mg/mL)
Physical Description:	Off-white solid
Storage and Stability:	Store as supplied at -20°C for up to 1 year from the date of purchase. Solutions in DMSO or ethanol may be stored at -20°C for up to 3 months.

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