Product Data Sheet

Product Name:	6-Iodonordihydrocapsaicin
Cat. No.:	GC13679

Chemical Properties

Cas. No.	859171-97-4		
Chemical Name	N-(4-hydroxy-2-iodo-5-methoxybenzyl)nonanamide		
SMILES	IC(C=C1O)=C(C=C1OC)CNC(CCCCCCCC)=O		
Formula	$C_{17}H_{26}INO_3$	M.Wt	419.3
Solubility	<20.96mg/ml in ethanol; <41.93mg/ml in DMSO	Storage	Store at RT
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	6-Iodonordihydrocapsaicin		

Background

IC50: 10 nm against 100 nm capsaicin

The vanilloid TRPV1 receptor, also known as VR1 receptor, belongs to the large family of ‘transient receptor potential’ (TRP). TRPV1 functions as a molecular integrator of nociceptive stimuli, including heat, protons and plant toxins, and is most abundant in peripheral sensory fibers of the C and Ad type. 6-iodo-nordihydrocapsaicin is a potent TRPV1 antagonist.

In vitro: Using human recombinant TRPV1, 6-Iodonordihydrocapsaicin (IC50=10 nm against 100 nm capsaicin) was about four times more potent than the prototypical TRPV1 antagonist, capsazepine [1].

In vivo: 6-Iodonordihydrocapsaicin was tested against capsaicin also on native TRPV1 in: (i) rat dorsal root ganglion neurons in culture; (ii) guinea-pig urinary bladder; and (iii) guinea-pig bronchi. In all cases, except for the guineapig bronchi, the compound was

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significantly more potent than capsazepine as a TRPV1 antagonist [1].

Clinical trial: Up to now, 6-Iodonordihydrocapsaicin is still in the preclinical development stage.

Reference:
[1] Appendino G, Harrison S, De Petrocellis L, Daddario N, Bianchi F, Schiano Moriello A, Trevisani M, Benvenuti F, Geppetti P, Di Marzo V. Halogenation of a capsaicin analogue leads to novel vanilloid TRPV1 receptor antagonists. Br J Pharmacol. 2003 Aug;139(8):1417-24.