Product Data Sheet

Product Name: FFN-102 (trifluoroacetate salt)
Cat. No.: GC18579

Chemical Properties

Cas. No.	1234064-11-9		
Chemical Name	4-(2-aminoethyl)-6-chloro-7-hydroxy-2H-1-benzopyran-2-one 2,2,2-trifluoroacetate		
SMILES	OC1=C(Cl)C=C(C(CCN)=CC(O2)=O)C2=C1.FC(F)(C(O)=O)F		
Formula	$C_{11}H_{10}ClNO_3.CF_3COOH$	M.Wt	353.7
Solubility	DMF: 20 mg/ml,DMSO: 20 mg/ml	Storage	Store at -20°C
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	FFN-102 (trifluoroacetate salt)		

Background

FFN-102 is a fluorescent false neurotransmitter (FFN) that is a substrate for the dopamine transporter (DAT) and vesicular monoamine transporter 2 (VMAT2). It is a pH-dependent fluorescent probe that labels dopamine cell bodies, axons, and presynaptic terminals. It can also be used to monitor dopamine exocytosis. It has a pKa of 6.2 and displays pH-dependent excitation spectra of 340 and 370 nm at pH 5 and 7.4, respectively, which correspond to vesicular and cytoplasmic pH values. The emission spectrum of FFN-102 is pH-independent at 453 nm, but the intensity of emission is pH-dependent with a higher intensity at a pH of 7.4. FFN-102 inhibits DAT (13.6% at a concentration of 10 uM) and the serotonin (5-HT) receptor subtype 5-HT2c (Ki = ~3 uM) but does not bind to 37 other central nervous system receptors and transporters, including dopamine receptors, up to a concentration of 10 uM.

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