
Product Data Sheet

Product Name: PA Nic
Cat. No.: GC50551

Chemical Properties

Cas. No.

SMILES C[N@@+](CC2=CC(OC3=C2C=CC(N(CC(O)=O)CC(O)=O)=C3)=O)CCC[C@H]1C4=CC=CN=C4.OC(C(F)(F)F)=O.[O-]C(C(F)(F)F)=O

Formula $C_{24}H_{26}N_3O_6 \cdot C_2F_3O_2 \cdot C_2HF_3O_2$ M.Wt 679.52

Solubility Soluble in DMSO Storage Store at -20°C

General For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon Condition request.

Structure

Background

Coumarin-caged nicotine. Releases nicotine when exposed to 390 ± 10 nm wavelength light ($\lambda_{max} = 404$ nm). Suitable for two-photon uncaging at <900 nm (Maximum two-photon cross-section at 810 nm). Extinction coefficient (ϵ) 17,400 M⁻¹cm⁻¹. Evokes nicotinic currents in mouse brain slices under one and two-photon activation conditions.

Banala et al (2018) Photoactivatable drugs for nicotinic optopharmacology. Nat.Methods 15 347 PMID:29578537 | Yan et al (2018) Nicotinic cholinergic receptors in VTA glutamate neurons modulate excitatory transmission. Cell Rep. 23 2236 PMID:29791835 | Arvin et al (2019) Probing nicotinic acetylcholine receptor function in mouse brain slices via laser flash photolysis of photoactivatable nicotine. J.Vis.Exp. 143 e58873 PMID:30735191

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

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