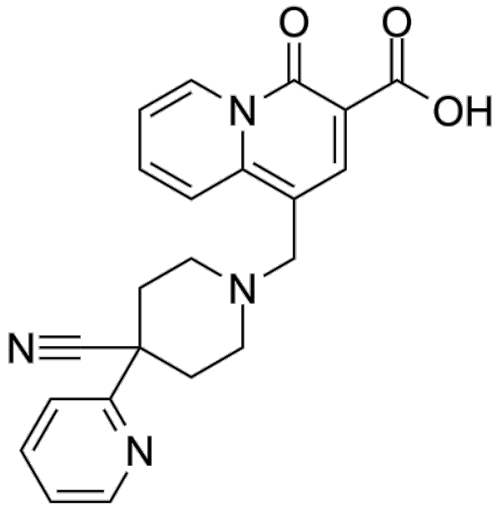
Product Data Sheet

Product Name: PQCA
Cat. No.: GC63153

Chemical Properties

Cas. No.	1144504-35-7		
Formula	$C_{22}H_{20}N_4O_3$	M.Wt	388.42
Solubility	DMSO : 10 mg/mL (25.75 mM; ultrasonic and warming and heat to 80°C)	Storage	Store at -20°C
General tips	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 Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		

Structure



Background

PQCA is a highly selective and potent muscarinic M1 receptor positive allosteric modulator. PQCA has an EC50 value of 49 nM and 135 nM on rhesus and human M1 receptor, respectively. PQCA is inactive for other muscarinic receptors. PQCA has potential to reduce the cognitive deficits associated with Alzheimer's disease[1][2].

PQCA (3-30 mg/kg; oral administration; single- or pair-housed male rhesus monkeys) treatment

attenuates the scopolamine deficits in PAL and CPT tasks. Blockade of muscarinic signaling by scopolamine produces significant impairments in both tasks[1].

[1]. Lange HS, et al. The M1 Muscarinic Positive Allosteric Modulator PQCA Improves Performance on Translatable Tests of Memory and Attention in Rhesus Monkeys. J Pharmacol Exp Ther. 2015 Dec;355(3):442-50.
[2]. Uslaner JM, et al. The muscarinic M1 receptor positive allosteric modulator PQCA improves cognitive measures in rat, cynomolgus macaque, and rhesus macaque. Psychopharmacology (Berl). 2013 Jan;225(1):21-30.