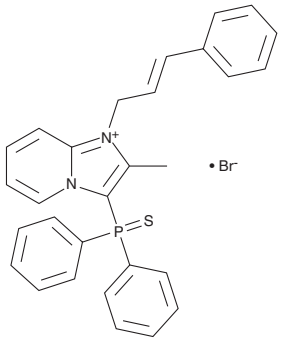
PRODUCT INFORMATION

ML-154

Item No. 30200



CAS Registry No.:	1345964-89-7
Formal Name:	3-(diphenylphosphinothioyl)-2-methyl-1-[(2E)-3-phenyl-2-propen-1-yl]-imidazo[1,2-a]pyridinium, monobromide
Synonym:	NCGC84
MF:	$C_{29}H_{26}N_2PS \bullet Br$
FW:	545.5
Purity:	≥98%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

ML-154 is supplied as a solid. A stock solution may be made by dissolving the ML-154 in the solvent of choice, which should be purged with an inert gas. ML-154 is soluble in the organic solvent DMSO (sonicated) at a concentration of approximately 10 mg/ml.

Description

ML-154 is an antagonist of the neuropeptide S receptor (NPSR; IC_{50} = 3.5 nM).[1] It is selective for NPSR over arginine vasopressin (AVP) receptor V_{1B}, as well as a panel of 55 receptors, channels, and transporters at 10 µM.[1,2] ML-154 reduces NPS-induced calcium mobilization, cAMP formation, and ERK activation with IC_{50} values of 0.96, 45, and 1.3 nM, respectively, in CHO cells expressing NPSR.[1] It reduces alcohol self-administration and the progressive ratio breakpoint, but not cue- or stress-induced reinstatement of alcohol-seeking behavior, in rats when administered intraperitoneally at a dose of 1 mg/kg.[2] ML-154 (10 µg, i.c.v.) inhibits decreases in food intake induced by intracerebroventricular administration of NPS in rats.[1]

References

1. Patnaik, S., Marugan, J.J., Liu, K., *et al.* Structure-activity relationship of imidazopyridinium analogues as antagonists of neuropeptide S receptor. *J. Med. Chem.* **56(22)**, 9045-9056 (2013).
2. Thorsell, A., Tapocik, J.D., Liu, K., *et al.* A novel brain penetrant NPS receptor antagonist, NCGC00185684, blocks alcohol-induced ERK-phosphorylation in the central amygdala and decreases operant alcohol self-administration in rats. *J. Neurosci.* **33(24)**, 10132-10142 (2013).

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