

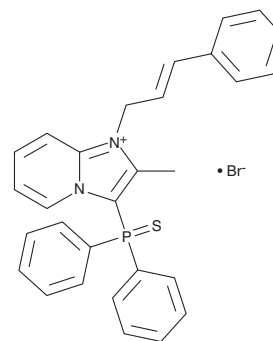
# PRODUCT INFORMATION



## 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<sub>29</sub>H<sub>26</sub>N<sub>2</sub>PS • 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<sub>50</sub> = 3.5 nM).<sup>1</sup> It is selective for NPSR over arginine vasopressin (AVP) receptor V<sub>1B</sub>, as well as a panel of 55 receptors, channels, and transporters at 10 μM.<sup>1,2</sup> ML-154 reduces NPS-induced calcium mobilization, cAMP formation, and ERK activation with IC<sub>50</sub> values of 0.96, 45, and 1.3 nM, respectively, in CHO cells expressing NPSR.<sup>1</sup> 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.<sup>2</sup> ML-154 (10 μg, i.c.v.) inhibits decreases in food intake induced by intracerebroventricular administration of NPS in rats.<sup>1</sup>

### 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).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

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#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM