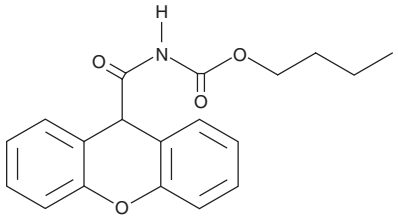
PRODUCT INFORMATION

Ro 67-4853

Item No. 11992

CAS Registry No.:	302841-89-0
Formal Name:	N-(9H-xanthen-9-ylcarbonyl)-carbamic acid, butyl ester
MF:	$C_{19}H_{19}NO_4$
FW:	325.4
Purity:	≥98%
UV/Vis.:	λ_{max}: 204, 242, 283 nm
Supplied as:	A crystalline solid
Storage:	22°C
Stability:	≥4 years



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

Laboratory Procedures

Ro 67-4853 is supplied as a crystalline solid. A stock solution may be made by dissolving the Ro 67-4853 in the solvent of choice, which should be purged with an inert gas. Ro 67-4853 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of Ro 67-4853 in these solvents is approximately 0.5, 5, and 16 mg/ml, respectively.

Ro 67-4853 is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

Ro 67-4853 is a positive allosteric modulator of metabotropic glutamate 1 receptors (mGluR1), enhancing glutamate-induced calcium signaling through both the human and mouse mGlu1a receptors (pEC_{50} = 7.16).[1,2] While only mildly potentiating mGluR5 signaling, this compound is without effect at mGluR2, mGluR4, or mGluR8, as well as at several other neural receptors.[1] Ro 67-4853 can also directly activate mGluR1 signaling in baby hamster kidney cells, leading to phosphorylation of ERK1/2 (EC_{50} = 6.2 nM) and activation of adenylate cyclase (EC_{50} = 11.7 µM).[3] Ro 67-4853 can also be used to enhance neuronal stimulation in response to the mGluR1/mGluR5 agonist DHPG, both *in vivo* and *in vitro* (EC_{50} = 95 nM).[1,4]

References

1. Knoflach, F., Mutel, V., Jolidon, S., *et al. Proc. Natl. Acad. Sci. USA* **98(23)**, 13402-13407 (2001).
2. Hemstapat, K., de Paulis, T., Chen, Y., *et al. Mol. Pharmacol.* **70(2)**, 616-626 (2006).
3. Sheffler, D.J. and Conn, P.J. *Neuropharmacology* **55(4)**, 419-427 (2008).
4. Salt, T.E., Jones, H.E., Andolina, I.M., *et al. Neuropharmacology* **62(4)**, 1695-1699 (2012).

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