# **PRODUCT** INFORMATION



**SHA-68** 

Item No. 21512

CAS Registry No.: Formal Name:	847553-89-3 N-[(4-fluorophenyl)methyl]tetrahydro- 3-oxo-1,1-diphenyl-3H-oxazolo[3,4-a] pyrazine-7(1H)-carboxamide		
MF:	C <sub>26</sub> H <sub>24</sub> FN <sub>3</sub> O <sub>3</sub>		$\mathbf{\tilde{I}}$ $\sim$ $\mathbf{\tilde{I}}$
FW:	445.5	N	N V
Purity:	≥95%		ý l
Supplied as:	A crystalline solid		N N
Storage:	-20°C	F ~	• (/ 0
Stability:	≥4 years		
Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis			

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# Laboratory Procedures

SHA-68 is supplied as a crystalline solid. A stock solution may be made by dissolving the SHA-68 in the solvent of choice, which should be purged with an inert gas. SHA-68 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of SHA-68 in these solvents is approximately 20, 14, and 16 mg/ml, respectively.

SHA-68 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, SHA-68 should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. SHA-68 has a solubility of approximately 0.33 mg/ml in a 1:2 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

# Description

SHA-68 is an antagonist of the neuropeptide S receptor (NPSR; IC<sub>50</sub>s = 22 and 23.8 nM for the NPSR Asn<sup>107</sup> and NPSR lle<sup>107</sup> isoforms, respectively).<sup>1</sup> It is selective for NPSR over a panel of 14 G protein-coupled receptors exhibiting no activity at a concentration of 10 µM. SHA-68 (50 mg/kg) reduces NPS-induced horizontal activity and vertical rearing and climbing in mice. SHA-68 also reduces conditioned reinstatement of cocaine seeking in rats.<sup>2</sup>

# References

- 1. Okamura, N., Habay, S.A., Zeng, J., et al. Synthesis and pharmacological in vitro and in vivo profile of SHA 68 (3-Oxo-1,1-diphenyl-tetrahydro-oxazolo[3,4-a]pyrazine-7-carboxylic acid 4-fluoro-benzylamide). a selective antagonist of the neuropeptide S receptor. J. Pharmacol. Exp. Ther. 325(5), 893-901 (2008).
- 2. Kallupi, M., Cannella, N., Economidou, D., et al. Neuropeptide S facilitates cue-induced relapse to cocaine seeking through activation of the hypothalamic hypocretin system. Proc. Natl. Acad. Sci. U.S.A. 107(45), 19567-19572 (2010).

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

## SAFFTY 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.

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