

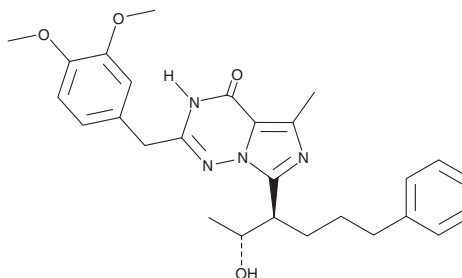
PRODUCT INFORMATION



BAY 60-7550

Item No. 10011135

CAS Registry No.: 439083-90-6
Formal Name: 2-[(3,4-dimethoxyphenyl)methyl]-7-[[1R]-1-hydroxyethyl]-4-phenylbutyl]-5-methyl-imidazo[5,1-f][1,2,4]triazin-4(1H)-one
MF: C₂₇H₃₂N₄O₄
FW: 476.6
Purity: ≥95%
Supplied as: A crystalline 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

BAY 60-07550 is supplied a crystalline solid. A stock solution may be made by dissolving the BAY 60-07550 in the solvent of choice, which should be purged with an inert gas. BAY 60-07550 is soluble in organic solvents such as ethanol, acetone, and DMSO. The solubility of BAY 60-7550 in these solvents is approximately 10 mg/ml.

Description

The second messengers cAMP and cGMP are important mediators of signal transduction and hence a wide range of cellular processes including vasodilation and synaptic plasticity. Type 2 cyclic nucleotide phosphodiesterases (PDE2) isoforms inactivate cAMP and cGMP by hydrolyzing the phosphodiester bond. BAY 60-7550 is a potent PDE2 inhibitor with IC₅₀ values of 2.0 nM (bovine) and 4.7 nM (human).¹ It is 50-fold more selective for PDE2 compared to PDE1 and greater than 100-fold selective compared to PDE5, PDE5B, PDE4B, PDE7B, PDE8A, PDE9A, PDE10A, and PDE11A.¹ At 3 mg/kg BAY 60-7550 antagonizes oxidative stress-induced anxiety-like behavioral effects in mice by increasing cGMP signaling.² At 1 mg/kg BAY 60-7550 improves the performance of rats in an object location task, enhancing cAMP/cGMP-mediated object and spatial memory consolidation.³

References

1. Boess, F.G., Hendrix, M., van der Staay, F.-J., *et al.* Inhibition of phosphodiesterase 2 increases neuronal cGMP, synaptic plasticity and memory performance. *Neuropharmacology* **47(7)**, 1081-1092 (2004).
2. Masood, A., Nadeem, A., Mustafa, S.J., *et al.* Reversal of oxidative stress-induced anxiety by inhibition of phosphodiesterase-2 in mice. *J. Pharmacol. Exp. Ther.* **326(2)**, 369-379 (2008).
3. Rutten, K., Van Donkelaar, E.L., Ferrington, L., *et al.* Phosphodiesterase inhibitors enhance object memory independent of cerebral blood flow and glucose utilization in rats. *Neuropsychopharmacology* **34(8)**, 1914-1925(2009).

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.

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