

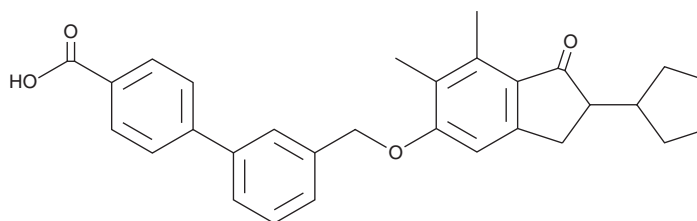
PRODUCT INFORMATION



Biphenylindanone A

Item No. 11986

CAS Registry No.: 866823-73-6
Formal Name: 3'-[[[2-cyclopentyl-2,3-dihydro-6,7-dimethyl-1-oxo-1H-inden-5-yl]oxy]methyl]-[1,1'-biphenyl]-4-carboxylic acid
Synonyms: BINA, MRLSD 230
MF: C₃₀H₃₀O₄
FW: 454.6
Purity: ≥98%
UV/Vis.: λ_{max}: 209, 271 nm
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

Biphenylindanone A is supplied as a crystalline solid. A stock solution may be made by dissolving the biphenylindanone A in the solvent of choice, which should be purged with an inert gas. Biphenylindanone A is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of biphenylindanone A in these solvents is approximately 0.20, 1.3, and 1.6 mg/ml, respectively.

Description

Biphenylindanone A (BINA) is a positive allosteric modulator of mGluR2, stimulating the human and rat receptors with EC₅₀ values of 33.2 and 96 nM, respectively.¹ It has no effect on glutamate-induced activation of other mGluR types.¹ BINA can be used on cells, tissues, or animals.^{1,2} Because of its selectivity for mGluR2, robust *in vivo* activity, and brain penetrance, BINA can be used to elucidate the role of mGluR2 in such diverse processes as psychosis, schizophrenia, and drug addiction.³⁻⁵

References

- Galici, R., Jones, C.K., Hemstapat, K., *et al.* Biphenyl-indanone A, a positive allosteric modulator of the metabotropic glutamate receptor subtype 2, has antipsychotic- and anxiolytic-like effects in mice. *J. Pharmacol. Exp. Ther.* **318**(1), 173-185 (2006).
- Dhanya, R.P., Sidique, S., Sheffler, D.J., *et al.* Design and synthesis of an orally active metabotropic glutamate receptor subtype-2 (mGluR2) positive allosteric modulator (PAM) that decreases cocaine self-administration in rats. *J. Med. Chem.* **54**(1), 342-353 (2011).
- Benneyworth, M.A., Xiang, Z., Smith, R.L., *et al.* A selective positive allosteric modulator of metabotropic glutamate receptor subtype 2 blocks a hallucinogenic drug model of psychosis. *Mol. Pharmacol.* **72**(2), 477-484 (2007).
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- Jin, X., Semenova, S., Yang, L., *et al.* The mGluR2 positive allosteric modulator BINA decreases cocaine self-administration and cue-induced cocaine-seeking and counteracts cocaine-induced enhancement of brain reward function in rats. *Neuropsychopharmacology* **35**(10), 2021-2036 (2010).

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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