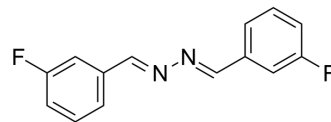


3,3'-Difluorobenzaldazine

Cat. No.:	HY-14611
CAS No.:	15332-10-2
Molecular Formula:	C ₁₄ H ₁₀ F ₂ N ₂
Molecular Weight:	244.24
Target:	mGluR
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	3,3'-Difluorobenzaldazine (DFB) is a selective positive allosteric modulator of mGluR5. 3,3'-Difluorobenzaldazine potentiates 3- to 6-fold action for mGlu5 agonists (Glutamate, Quisqualate, and 3,5-Dihydroxyphenylglycine), with EC ₅₀ s in the 2 to 5 μM range ^[1] .
In Vitro	3,3'-Difluorobenzaldazine (DFB) causes a concentration-dependent potentiation of the response of human mGluR5 CHO cells to 300 nM glutamate in this assay. The maximal potentiation at this concentration of glutamate is approximately 3.1-fold, with an EC ₅₀ for potentiation of 2.6 μM. 3,3'-Difluorobenzaldazine causes similar potentiation of the responses of both human mGluR5 and rat mGluR5 CHO cells to glutamate, quisqualate, and DHPG with comparable potencies ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	3,3'-Difluorobenzaldazine (40-100 nmol; icv) attenuates the locomotor hyperactivity, motor incoordination, and cognitive impairment induced by Ketamine ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
Animal Model:	Male NMRI and ICR mice (8-9 weeks, 33-40 g) ^[2]
Dosage:	40-100 nmol (~9.7-24.4 μg)
Administration:	ICV
Result:	Attenuated the locomotor hyperactivity, motor incoordination, and cognitive impairment induced by Ketamine.

REFERENCES

- [1]. O'Brien JA, et al, Chen TB, et al. A family of highly selective allosteric modulators of the metabotropic glutamate receptor subtype 5. *Mol Pharmacol.* 2003;64(3):731-740.
- [2]. O'Brien JA, et al. A family of highly selective allosteric modulators of the metabotropic glutamate receptor subtype 5. *Mol Pharmacol.* 2003;64(3):731-740.

Caution: Product has not been fully validated for medical applications. For research use only.

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