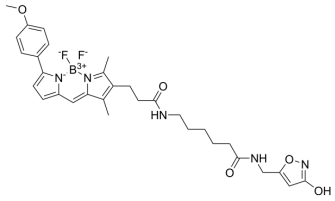
Bodipy TMR-X muscimol

Cat. No.:	HY-D1704
CAS No.:	849464-08-0
Molecular Formula:	$C_{31}H_{36}BF_2N_5O_5$
Molecular Weight:	607.46
Target:	GABA Receptor
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Bodipy TMR-X muscimol is a Bodipy labeled Muscimol (HY-N2313) (Ex=543 nm, Em=572 nm). Muscimol is a GABAA agonist. Bodipy TMR-X muscimol can be used for imaging the spread of reversible brain inactivations[1].
IC_{50} & Target	GABAA receptor[1]
In Vivo	Guidelines (Following is our recommended protocol. This protocol only provides a guideline, and should be modified according to your specific needs)[2]. 1. Rats are infused with Bodipy TMR-X muscimol as below: dilute the stock solution to 2 μg/μL (in PBS), infused into both hemispheres at a rate of 0.25 μL/min for a single minute, resulting in a final infusion volume of 0.25 μL and a final dose of 0.5 μg per side. 2. The animals are sacrificed by rapid decapitation 15 min after infusion in order to match the spread to what the experimental animals received immediately prior to behavioral testing. 3. The brains are removed and flash frozen in 45°C isopentane, stored at 80°C. 4. Coronal slices are sectioned at 60 μm. The slices are mounted on charged microscope slides and counterstained with DAPI. 5. The stained slices are incubated in a cool, dark room at room temperature for 3 d before being visualized with a confocal microscope. 6. A digital plate from the Paxinos and Watson (2007) rat brain atlas is overlaid on the image to visualize the spread. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Timothy A Allen, et al. Imaging the spread of reversible brain inactivations using fluorescent muscimol. J Neurosci Methods. 2008 Jun 15;171(1):30-8.

[2]. Nicholas A Heroux, et al. Differential involvement of the medial prefrontal cortex across variants of contextual fear conditioning. Learn Mem. 2017 Jul 17;24(8):322-330.

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

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA