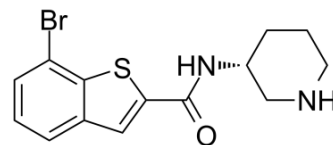


## Br-PBTC

Cat. No.:	HY-103066
CAS No.:	1839519-57-1
Molecular Formula:	C <sub>14</sub> H <sub>15</sub> BrN <sub>2</sub> OS
Molecular Weight:	339.25
Target:	nAChR
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Br-PBTC is a potent, 2/4 subtype-selective positive allosteric modulator of nAChRs (nicotinic acetylcholine receptors) with $\alpha 2\beta 2\gamma$ , $\alpha 2\beta 4\gamma$ , $\alpha 4\beta 2\gamma$ , $\alpha 4\beta 4\gamma$ , $(\alpha 4\beta 2)_2\alpha 4$ and $(\alpha 4\beta 2)_2\beta 2$ EC <sub>50</sub> ranges from 0.1~0.6 $\mu$ M. Br-PBTC acts from the c-tail of an $\alpha$ subunit <sup>[1]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	nAChRs <sup>[1]</sup>
<b>In Vitro</b>	Br-PBTC (0.01~10 $\mu$ M; HEK cells) selectively affects 2 and 4 subunits. Br-PBTC (3 $\mu$ M; oocytes) has greater effects on nAChRs with 2 subunits over those with 4 subunits. Br-PBTC (0.01~10 $\mu$ M; 15 minutes; HEK cells) can increase channel activation by a maximal concentration of ACh. Br-PBTC (3 $\mu$ M; 50 seconds; oocytes) increased ACh activation of $\alpha 4\beta 2$ nAChRs by 385± 61 %. Br-PBTC (3 $\mu$ M; oocytes) reactivates short term desensitized nAChRs expressed. Br-PBTC (3 $\mu$ M; 500 seconds; HEK cells) reactivates short term desensitized $(\alpha 4\beta 2)_2\alpha 4$ and $(\alpha 4\beta 2)_2\beta 2$ nAChRs expressed. Br-PBTC (0.1~100 $\mu$ M; 10~140 seconds; HEK cells) reactivates long term desensitized nAChRs <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

[1]. Wang J, et al. A Novel  $\alpha 2/\alpha 4$  Subtype-selective Positive Allosteric Modulator of Nicotinic Acetylcholine Receptors Acting from the C-tail of an  $\alpha$  Subunit. J Biol Chem. 2015;290(48):28834-28846.

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

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