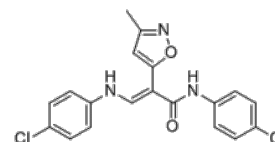


**Product Name** : XY-4083  
**Cat. No.** : PC-21453  
**CAS No.** : 917837-54-8  
**Molecular Formula** : C<sub>19</sub>H<sub>15</sub>Cl<sub>2</sub>N<sub>3</sub>O<sub>2</sub>  
**Molecular Weight** : 388.25  
**Target** : nAChR  
**Solubility** : 10 mM in DMSO



## Biological Activity

XY-4083 (AVL-3288) is a selective type I  $\alpha 7$  nAChR positive allosteric modulator (PAM), evokes positive modulation of EC5 currents induced by acetylcholine ACh, choline, and nicotine with EC50 of 0.7, 0.6 and 0.5  $\mu$ M, respectively.

XY-4083 does not evoke modulation of EC5-evoked currents at human  $\alpha 4\beta 2$ , rat  $\alpha 3\beta 4$ , and mouse  $\alpha 1\beta 1\gamma \delta$  nAChR subtypes or human 5-HT3A receptors expressed in oocytes.

XY-4083 also evokes positive modulation of choline-evoked currents in SH-SY5Y cells transfected with  $\alpha 7$  nAChRs.

XY-4083 corrects sensory-gating deficits and improves working memory, effects consistent with cognitive enhancement in rodent models.

## References

Ng HJ, et al. Proc Natl Acad Sci U S A. 2007.

**Caution: Product has not been fully validated for medical applications. Lab Use Only!**

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