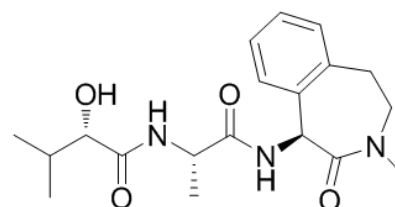


**Product Name** : Semagacestat  
**Cat. No.** : PC-42053  
**CAS No.** : 425386-60-3  
**Molecular Formula** : C<sub>19</sub>H<sub>27</sub>N<sub>3</sub>O<sub>4</sub>  
**Molecular Weight** : 361.4354  
**Target** :  $\gamma$ -secretase  
**Solubility** : 10 mM in DMSO



## Biological Activity

Semagacestat (LY-450139) is a potent  **$\gamma$ -secretase** inhibitor that inhibits  $\beta$ -amyloid A $\beta$ <sub>42</sub>, A $\beta$ <sub>38</sub> and A $\beta$ <sub>40</sub> with IC<sub>50</sub> of 10.9, 12 and 12.1 nM, respectively.

Semagacestat (LY-450139) reduces the secretion of A $\beta$ <sub>42</sub>, A $\beta$ <sub>40</sub>, and A $\beta$ <sub>38</sub> in cells and increases  $\beta$ -CTF in cell lysates, also inhibits Notch signaling with IC<sub>50</sub> of 14.1 nM.

Semagacestat (LY-450139) increases intracellular byproduct peptides, produced along with A $\beta$  through serial  $\gamma$ -cleavage of  $\beta$ APP, as well as intracellular long A $\beta$  species, in cell-based and in vivo studies of AD model mice; a pseudo-inhibitor of  $\gamma$ -secretase.

## References

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Elvang AB, et al. J Neurochem. 2009 Sep;110(5):1377-87.

Tagami S, et al. Cell Rep. 2017 Oct 3;21(1):259-273.

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

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