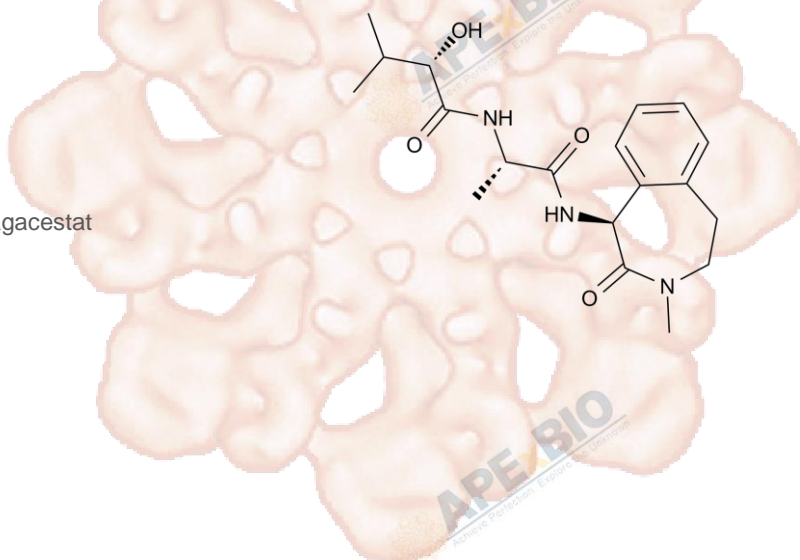


Semagacestat (LY450139)

Cat. No.:	A8190
CAS No.:	425386-60-3
Formula:	C ₁₉ H ₂₇ N ₃ O ₄
M.Wt:	361.44
Synonyms:	LY-450139, LY 450139, Semagacestat
Target:	Neuroscience
Pathway:	Amyloid β
Storage:	Store at -20°C



Solvent & Solubility

insoluble in H₂O; ≥ 18.05 mg/mL in DMSO; ≥ 40.3 mg/mL in EtOH with ultrasonic

In Vitro

Preparing Stock Solutions	Solvent		Mass		
	Concentration		1mg	5mg	10mg
	1 mM		2.7667 mL	13.8336 mL	27.6671 mL
	5 mM		0.5533 mL	2.7667 mL	5.5334 mL
	10 mM		0.2767 mL	1.3834 mL	2.7667 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary

γ -secretase inhibitor

IC₅₀ & Target

10.9 nM (A β 42), 12.1 nM (A β 40), 12.0 nM (A β 38), 14.1 nM (Notch)

In Vitro

Cell Viability Assay

Cell Line:	H4 human glioma cells stably overexpressing human wild-type APP695
Preparation method:	The solubility of this compound in DMSO is >10 mM. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Reacting conditions:	24 h; 10 μ M

	Applications:	Using H4 cells stably overexpressing human wild-type APP, LY450139 reduced the secretion of A β 42, A β 40, and A β 38 in 96-well-cultured media and increased β -CTF in cell lysates as expected, although this increase was unexpectedly attenuated at high concentrations. The biphasic β -CTF response to LY450139 was also found in Western blot analysis of six-well-cultured cells using two anti-bodies, 82E1 and 6E10, which recognize the N-terminal region of A β .
In Vivo	Animal experiment	
	Animal models:	Female Tg2576 mice
	Dosage form:	3 mg/kg, oral taken.
	Applications:	To determine the sites of β -CTF accumulation in response to LY450139, immunofluorescence of anti-human A β / β -CTF N-terminal-specific antibody (82E1) was applied to hippocampal slices from Tg2576 mice. Three-month-old Tg2576 mice were administered 3 mg/kg LY450139 for 8 d, with the brain fixed 3 h after the last administration. When immunofluorescence intensities in these regions were normalized with that in the CA3 stratum pyramidale of the same slice, LY450139-treated mice showed significantly higher relative immunoreactivity compared with the vehicle-treated mice.
Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.	

Product Citations

See more customer validations on www.apexbt.com.

References

[1] Mitani Y, Yarimizu J, Saita K, et al. Differential effects between γ -secretase inhibitors and modulators on cognitive function in amyloid precursor protein-transgenic and nontransgenic mice[J]. The Journal of Neuroscience, 2012, 32(6): 2037-2050.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APEX \times BIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage

temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.



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