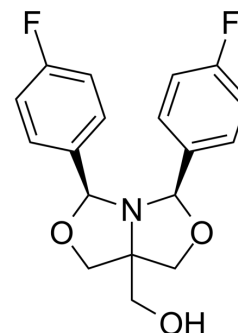


## TH-237A

<b>Cat. No.:</b>	HY-11054		
<b>CAS No.:</b>	935467-97-3		
<b>Molecular Formula:</b>	C <sub>18</sub> H <sub>17</sub> F <sub>2</sub> NO <sub>3</sub>		
<b>Molecular Weight:</b>	333.33		
<b>Target:</b>	Others		
<b>Pathway:</b>	Others		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



### SOLVENT & SOLUBILITY

#### In Vitro

Ethanol : 100 mg/mL (300.00 mM; Need ultrasonic)  
 DMSO : ≥ 46 mg/mL (138.00 mM)  
 \* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	3.0000 mL	15.0002 mL	30.0003 mL
	5 mM	0.6000 mL	3.0000 mL	6.0001 mL
	10 mM	0.3000 mL	1.5000 mL	3.0000 mL

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

#### In Vivo

- Add each solvent one by one: 10% EtOH >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: ≥ 2.5 mg/mL (7.50 mM); Clear solution
- Add each solvent one by one: 10% EtOH >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.5 mg/mL (7.50 mM); Clear solution
- Add each solvent one by one: 10% EtOH >> 90% corn oil  
Solubility: ≥ 2.5 mg/mL (7.50 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

TH-237A(meso-GS 164) is a novel neuroprotective agent exhibiting favorable permeation across the blood brain barrier. IC50 value: 5 nM (EC50, concentration that leads to a 50% increase in neuronal survival in the presence of the Aβ peptides) Target: Primary neurons were isolated from embryonic Sprague-Dawley rats, grown in culture (Michaelis et al., 1994) and exposed to either Aβ25-35 or Aβ1-42 in the presence or absence of TH-237A at concentrations ranging from 0.5 to 60 nM. The neurons were treated with TH-237A for 2 hours prior to exposure to the Aβ peptides. Changes in neuronal survival following

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treatment with TH 237A were evaluated using the Live/Dead assay. The EC50 for TH-237A was 5 nM, demonstrating that it had excellent neuroprotective properties.

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## REFERENCES

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[1]. Kelly E. Desino, Improving Blood Brain Barrier Permeation of Small Molecules Exhibiting Chemotherapeutic and Neuroprotective Effects.

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

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