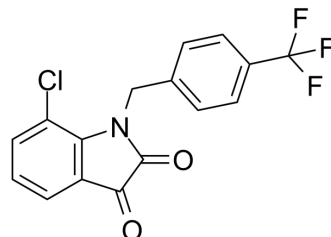


## VU0238441

<b>Cat. No.:</b>	HY-12158		
<b>CAS No.:</b>	85511-68-8		
<b>Molecular Formula:</b>	C <sub>16</sub> H <sub>9</sub> ClF <sub>3</sub> NO <sub>2</sub>		
<b>Molecular Weight:</b>	339.7		
<b>Target:</b>	mAChR		
<b>Pathway:</b>	GPCR/G Protein; Neuronal Signaling		
<b>Storage:</b>	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 125 mg/mL (367.97 mM; Need ultrasonic)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.9438 mL	14.7189 mL	29.4377 mL
	5 mM	0.5888 mL	2.9438 mL	5.8875 mL
	10 mM	0.2944 mL	1.4719 mL	2.9438 mL

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

### BIOLOGICAL ACTIVITY

<b>Description</b>	VU0238441 is a pan muscarinic acetylcholine receptor (mAChR) positive allosteric modulator (PAM) with EC <sub>50</sub> s of 3.2 μM, 2.8 μM, 2.2 μM, 2.1 μM, >10 μM for M1, M2, M3, M5 and M4, respectively <sup>[1][2]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	EC <sub>50</sub> : 3.2 μM (M1), 2.8 μM (M2), 2.2 μM (M3), 2.1 μM (M5) and >10 μM (M4) <sup>[1]</sup>
<b>In Vitro</b>	VU0238441 is an analogue of VU0119498 <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

[1]. Thomas M Bridges, et al. Chemical lead optimization of a pan G(q) mAChR M(1), M(3), M(5) positive allosteric modulator (PAM) lead. Part I: Development of the first highly selective M(5) PAM. *Bioorg Med Chem Lett*. 2010 Jan 15;20(2):558-62.

[2]. Thomas M Bridges, et al. Discovery of the first highly M5-preferring muscarinic acetylcholine receptor ligand, an M5 positive allosteric modulator derived from a series of 5-trifluoromethoxy N-benzyl isatins. *J Med Chem*. 2009 Jun 11;52(11):3445-8.

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

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