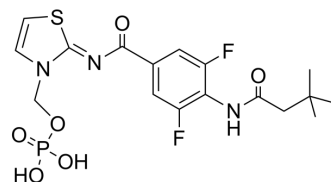


Lu AA47070

Cat. No.:	HY-14408
CAS No.:	913842-25-8
Molecular Formula:	C ₁₇ H ₂₀ F ₂ N ₃ O ₆ PS
Molecular Weight:	463.39
Target:	Adenosine Receptor
Pathway:	GPCR/G Protein
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Lu AA47070 is a phosphonoxyethylene prodrug of a potent and selective Adenosine A2A receptor antagonist. Lu AA47070 reverses the motor and motivational effects produced by dopamine D2 receptor blockade ^{[1][2]} .																										
In Vivo	<p>Lu AA47070 (3.75, 7.5, 15, 30 mg/kg; i.p.) reverseS the tremulous jaw movements, catalepsy, and locomotor suppression induced by subchronic administration of the D2 antagonist pimozide (1.0 mg/kg IP)^[2].</p> <p>Pharmacokinetic Parameters of Lu AA47070 in Sprague-Dawley rats^[1].</p> <table border="1"> <thead> <tr> <th>Compd</th> <th>dose [mg/kg]</th> <th>AUC(ng*h/L)</th> <th>T_{max} (h)</th> <th>C_{max} (ng/mL)</th> <th>F (%)</th> </tr> </thead> <tbody> <tr> <td>32</td> <td>1.5</td> <td>2.9±0.7</td> <td>0.5±0.1</td> <td>869±68</td> <td>55±13</td> </tr> <tr> <td>32</td> <td>15</td> <td>35±3.0</td> <td>0.4±0.2</td> <td>6413±281</td> <td>66±6</td> </tr> </tbody> </table> <p>Sprague-Dawley rats, 1.5, 15 mg/kg po^[1]</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1"> <tr> <td>Animal Model:</td> <td>Male Sprague Dawley rats^[2]</td> </tr> <tr> <td>Dosage:</td> <td>3.75, 7.5, 15, 30 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>i.p.</td> </tr> <tr> <td>Result:</td> <td>Reversed the tremulous jaw movements, catalepsy, and locomotor suppression induced by subchronic administration of the D2 antagonist pimozide (1.0 mg/kg IP).</td> </tr> </table>	Compd	dose [mg/kg]	AUC(ng*h/L)	T _{max} (h)	C _{max} (ng/mL)	F (%)	32	1.5	2.9±0.7	0.5±0.1	869±68	55±13	32	15	35±3.0	0.4±0.2	6413±281	66±6	Animal Model:	Male Sprague Dawley rats ^[2]	Dosage:	3.75, 7.5, 15, 30 mg/kg	Administration:	i.p.	Result:	Reversed the tremulous jaw movements, catalepsy, and locomotor suppression induced by subchronic administration of the D2 antagonist pimozide (1.0 mg/kg IP).
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REFERENCES

- [1]. Collins LE, et al. The novel adenosine A2A antagonist Lu AA47070 reverses the motor and motivational effects produced by dopamine D2 receptor blockade. *Pharmacol Biochem Behav.* 2012 Jan;100(3):498-505.
- [2]. Discovery of Phosphoric Acid Mono-[(E/Z)-4-(3,3-dimethyl-butylamino)-3,5-difluoro-benzoylimino]-thiazol-3-ylmethyl} Ester (Lu AA47070): A

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

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