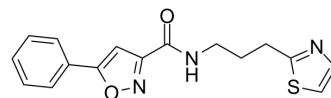


PY-60

Cat. No.:	HY-141644												
Molecular Formula:	C ₁₆ H ₁₅ N ₃ O ₂ S												
Molecular Weight:	313.37												
Target:	YAP												
Pathway:	Stem Cell/Wnt												
Storage:	<table border="0"> <tr> <td>Powder</td> <td>-20°C</td> <td>3 years</td> </tr> <tr> <td></td> <td>4°C</td> <td>2 years</td> </tr> <tr> <td>In solvent</td> <td>-80°C</td> <td>6 months</td> </tr> <tr> <td></td> <td>-20°C</td> <td>1 month</td> </tr> </table>	Powder	-20°C	3 years		4°C	2 years	In solvent	-80°C	6 months		-20°C	1 month
Powder	-20°C	3 years											
	4°C	2 years											
In solvent	-80°C	6 months											
	-20°C	1 month											



SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (319.11 mM; Need ultrasonic)					
	Preparing Stock Solutions	Solvent	Mass	1 mg	5 mg	10 mg
		Concentration				
		1 mM		3.1911 mL	15.9556 mL	31.9112 mL
		5 mM		0.6382 mL	3.1911 mL	6.3822 mL
10 mM		0.3191 mL	1.5956 mL	3.1911 mL		
Please refer to the solubility information to select the appropriate solvent.						
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (7.98 mM); Clear solution					

BIOLOGICAL ACTIVITY

Description	<p>PY-60 is a robust and specific activator of YAP transcriptional activity that targets annexin A2 (ANXA2) with a K_d of 1.4 μM. PY-60 directly binds to ANXA2 and antagonizes its normal cellular function of repressing YAP activity^[1].</p>
In Vitro	<p>PY-60 targets ANXA2 to activate YAP^[1].</p> <p>PY-60, a thiazole-substituted derivative, dose-dependently induces luciferase activity in 293A-TEAD-LUC cells in the presence or absence of serum when cells were plated at high cell density (EC₅₀= 1.5 and 1.6 μM, respectively). PY-60 treatment also dose-dependently promoted the association of YAP and TEAD proteins in cells and induced the nuclear localization of YAP in response to increased cell density. PY-60 robustly increases the levels of YAP-controlled transcripts (that is, ANRKD1, CYR61 and CTGF) in 293A cells and other human cell lines (that is, MCF10A, HEK293T, H69 and HaCaT), but did not augment the levels of YAP itself (YAP1)^[1].</p> <p>PY-60 activates a proproliferative, YAP-dependent transcriptional program in the adult animal capable of remodeling the epidermis through proliferation^[1].</p> <p>PY-60 liberates the ANXA2-YAP complex from the cell membrane and competes for ANXA2 binding of phosphoinositides^[1].</p>

	MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	<p>PY-60 (10 μM; applied topically to the dorsal skin of wild-type adult C57BL/6 mice over the course of 10 days) promotes a dramatic expansion of keratinocytes and K14-positive precursors, as assessed by hematoxylin and eosin and anti-K14 histological staining at the study end. PY-60 results in an approximate doubling of epidermal thickness, a result derived from an increased number of keratinocytes per unit length of skin^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

REFERENCES

[1]. Shalhout SZ, et al. YAP-dependent proliferation by a small molecule targeting annexin A2. Nat Chem Biol. 2021;17(7):767-775.

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

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