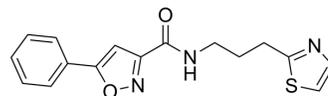


PY-60

Cat. No.:	HY-141644		
CAS No.:	2765218-56-0		
Molecular Formula:	C ₁₆ H ₁₅ N ₃ O ₂ S		
Molecular Weight:	313.37		
Target:	YAP		
Pathway:	Stem Cell/Wnt		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (319.11 mM; Need ultrasonic)			
		Solvent Concentration	Mass	
			1 mg	5 mg
			10 mg	
Preparing Stock Solutions	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	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] .
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>

	PY-60 liberates the ANXA2-YAP complex from the cell membrane and competes for ANXA2 binding of phosphoinositides ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	PY-60 (10 uM; 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] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- J Bone Miner Metab. 2022 Nov 18.
- bioRxiv. 2023 Aug 22.

See more customer validations on www.MedChemExpress.com

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.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA